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PREFACE.

In presenting this Catalogue to the Public, it has been deemed necessary to explain briefly the circumstances connected with its publication, and the causes of the delay that has occurred in its appearance, as well as to furnish a short sketch of the Life of the Compiler.

Mr. J. O. Voigt, the son of Dr. John Henry Voigt, was born March 22nd 1798, at Nordborg in Sleswick, a few miles distant from that portion of Jutland in Denmark, whence the Angles of ancient days passed over to England—still known as the province of Angeln. He received his early education in one of the Royal public schools, where he was as much distinguished for the bold and enterprizing spirit with which he entered into every scheme of fun and frolic, as for the energy and perseverance with which he applied to the more sober pursuits of his class.

At the age of sixteen, he passed with much credit from the school to the Royal University of Copenhagen, where he became an inmate in the family of his uncle, Dr. Giesseman, Professor of Anatomy there, and Physician to the Queen; and although he had been educated with a view to his entering the Church, circumstances soon determined him to make Physic his study. Towards the close of his collegiate course, whilst steadily pursuing his studies, and surrounded by every comfort that affluence could secure, he was suddenly reduced to considerable straits by the death of his uncle and his father, within a very short period of each other. His mother and an only sister were left in circumstances, not indeed of affluence, but of perfect comfort—yet such was his sense of honor, that he determined at once to withdraw *his* claim on their resources, and to create at all risks the means of his own support; at the same time he carefully concealed from his bereaved

parent the hardships his resolution entailed upon him. He now had recourse therefore to the only means open to a student, and devoted several hours of each day to imparting to others the knowledge he had himself attained in various branches of study, particularly in medicine; and it may here be mentioned that he so won the hearts of those who at this time enjoyed the benefit of his instructions by the peculiar openness and urbanity of his disposition, apart from the respect which the propriety of his conduct, and the high order of his attainments always commanded from them though scarcely his inferiors in age, that, when brighter days came, they could not allow their connection to close, without presenting him with a most handsome and flattering testimonial of their regard, accompanied by a little ode of no small merit, expressive of their deep respect and gratitude. During the first six weeks of his new occupation the ordeal was such as he found it difficult to stand; for to make both ends meet, to keep up the appearance of a gentleman, and yet to pursue his own course of study with unbroken zeal, he was often constrained to content himself with a hasty meal by the fireside of his own little study at the close of the day, preparatory to kindling the nightly lamp over which he poured to an early hour of each succeeding morning. In after-life he was accustomed facetiously to refer to this period of his life with unaffected satisfaction, as having been equally one of high moral benefit, and of genuine enjoyment.

At the age of twenty-one he quitted the University with high honors,—according to continental phraseology, with "the best character"—and, soon after, obtaining a commission in the King's service, he was appointed to a post immediately under Professor Withusen, successor to his uncle in Frederick's Hospital, where his own medical studies had been previously pursued. This he held for some years, but becoming at length weary of the incessant toil, and entire want of leisure, which the heavy duties of his situation entailed upon him, and having from early youth had a great desire to go abroad, he determined on accepting the post of Surgeon to *this* colony of Denmark, which had just become vacant, and arrived in Serampore early in 1827, having left his native land in the previous autumn with the intention of being absent for the term of only *five* years. Before the expiration of this period, however, he had formed connections in India which considerably changed his views. He so

highly estimated the delights of the domestic circle in which he now found himself, and which his warm and generous heart was formed so fully to appreciate, that he at once relinquished the idea of an early return to his native land. At the same time he so much valued the opportunities and advantages for intellectual and scientific pursuits, which the leisure of his situation afforded him, that although the emoluments it presented fell far below those his talents and skill might have commanded in a larger sphere, he refused to exchange it for the more lucrative prospects that were repeatedly offered him through the medium of the Honorable Company's Service.

Mr. Voigt had made Botany a study before he left Denmark, but was not induced to devote much time to it, until the society and Botanic Garden of the late eminent Dr. Carey, by presenting him with peculiar advantages, led him to turn his thoughts more particularly to that science; and the intercourse with this great man, to which his determination naturally led, became to him a source of abundant delight.

On Dr. Carey's death in 1834, his garden came immediately under Mr. Voigt's superintendence, and he entered on the duties and enjoyments with which it furnished him with energy and spirit peculiarly his own. Whatever his hand found to do, he may truly be said to have done with all his might. His day was portioned out with so much method that every hour had its allotted occupation, and yet time was found for every thing. That which was not employed in the ordinary duties and cares that usually devolve on the medical practitioner in India, was devoted to study, particularly to Botany; or to a renewal of acquaintance with his favourite authors among the classics, with all of whom he was particularly at home; or to exploring the rich field of English literature, which, having to his twenty-eighth year been to him as a sealed book, united to its other charms that of novelty. Yet the claims of the garden were never forgotten. Mr. Voigt was a very early riser, and a great advocate for air and exercise. His father had from his earliest childhood inured him to the most hardy and almost violent use of the latter, and so far agreed with Locke in the rules he lays down for the treatment of children, as to carry them out in the training of his son to the fullest extent—or, as Mr. Voigt used to remark, "to perfect his medical skill, by experiments at home."

After a ride of several miles on horseback, the exercise to which he was most partial, and which from his uncommon strength of body, and buoyancy of spirit, he was well fitted to enjoy, *two* and sometimes *three* hours were devoted to the garden, preparatory to entering on the duties of the day.

Early in 1836, an Hospital was founded in Serampore at the suggestion of the late Dr. Marshman, for the relief of the Native poor, under the auspices of the Queen of Denmark. To this Mr. Voigt immediately offered his gratuitous services, and thus enlarged in no small degree the sphere of his labors; but the energy of his mind was equal to every emergency, and rendered all things light that came within the sphere of duty; and in the discharge of *gratuitous* service, he was always peculiarly in his element. To be needy and friendless, was to possess a claim on his attention, and the opportunities his professional skill afforded him of being serviceable to others, and particularly to the widow and the orphan, were regarded as the chief redeeming qualities of a profession to which he was never particularly partial. With a mind of great strength and firmness, united in the discharge of professional duty, with uncommon calmness and self-possession, he combined such genuine kindliness and generosity of feeling, and so humble an estimate of his own worth, that in these instances, he always felt *himself* the person obliged. Numerous instances might here be adduced to shew his ready attention to the calls of humanity, his firm integrity of purpose, his unbending independence of mind, the simplicity and sincerity of his character, his disinterested and faithful discharge of duty, his sterling worth as a man and a friend, and the ardour of his affection in the more tender relations of life—but the brief nature of this sketch forbids it.

Dr. Carey's garden had furnished Mr. Voigt with so rich and varied a field of information and delight, that a sense of gratitude united with the deep veneration with which he cherished the memory of its philanthropic founder, led him to feel it his duty to place on record the results of the Botanical labors of this eminent man, embracing as they did, a period of upwards of *thirty* years; and he was subsequently induced by the advice of friends, to add to this, a sketch of the successful operations of the H. C. Botanic Garden, and to determine on publishing the *whole* Catalogue.

This was accomplished by the end of 1841, and placed by Mr. Voigt at the disposal of the Agricultural and Horticultural Society, who generously engaged to defray the expenses of the publication. After the first *sixteen* pages had passed through the Press however, obstacles arose to the acceptance of the Society's offer, and the printing of the work was suspended; so that when in 1842 the temporary charge of the H. C. Botanic Garden furnished him with opportunities for making additions to the work, he eagerly improved them to the utmost of his power. These were completed only the week before he was attacked with the distressing and severe illness which rendered recourse to a more salubrious climate immediately necessary.

He accordingly left India early in 1843, in the hope that restored health would enable him to carry the Catalogue through the Press either in England or in Denmark—but his lamented death in London on the 22nd June 1843, only a few weeks after his arrival in England, and when just on the eve of departure for his native land, at once frustrated every plan.

The manuscripts were after this detained by mistake in London, instead of being forwarded to Copenhagen. From thence they were brought back to India, and by the advice of the late Mr. Wm. Griffith, once more put to Press at the commencement of 1844, and it is solely to the kindness of this valued friend, that they owe their appearance, he having generously offered his invaluable services in superintending their progress through the Press.

The printing of the Catalogue was completed a few days before Mr. Griffith's removal to Malacca, but his departure prevented his preparing a Review of the work, which, with the Indexes and other parts necessary to its publication, he had kindly promised to furnish. These he proposed to forward from the Straits, but his melancholy and premature death soon deprived his friends and the interests of science of the invaluable services of this eminent Botanist. A few remarks which he made therefore in writing to a friend on receiving the manuscripts whilst at the H. C. Botanic Garden, are all that can now be given to shew his opinion of their merits.

"The MSS." he says "are very valuable indeed, and the "arrangements so clear, the writing so lucid, the whole tendency

"so practical, the mass of information so great, that it would be a "*mortal* sin not to publish them. The work will do Voigt very "great credit—it must have cost him great labour, and I can "answer for it, that it will perpetuate his name as an Indian "Botanist. You know such works are the statistics of Botanical "Systematic Science.

"The Catalogue would certainly command an European sale, "as it would be essential to all real Botanists. Indeed I know of "none, which would contain so much interesting information. The "present size perhaps had better be adopted; it is a common one "on the Continent, and is not altogether unwieldy. To complete "it, you must give a short outline of Voigt's life. * * * * *

"I hope the work will be profitable pecuniarily, for I should "like to see a handsome monument erected to Voigt, if possible, "in these gardens, where, as his memory would then be associated "with that of Roxburgh, Jack, and I hope Buchanan, it would be "in good company.*

"The MSS. when printed will be a mass of information avail-"able to the Public. They give exact references to the native "country, the Bengalee name, the medical or economical proper-"ties, date of introduction and flowering season, and whether or "no the fruits are ripened, also the description of plant, whether "shrub, tree, etc. etc.

"It will be on the ground of its being a Genera of Plants of "Lower Bengal, and its great practical utility, that I shall be "delighted to recommend it as the systematic hand-book of the "Botanical class, as such it will constitute era the second in "Bengal Botany."†

The Indexes and other parts necessary to the publication of the Catalogue were still untouched when Mr. Griffith's death frustrated

* Dr. Griffith was so bent on seeing the wish here mentioned accomplished, that he selected a monument himself some time before his departure for Malacca, and on the day of his embarkation desired that "it might still be reserved as he had originally directed for erection in the Garden on some future day in memory of Dr. Voigt." It is a melancholy fact, that the same monument has since been purchased by his friends for erection on his own remains at Malacca.

† The number of Genera described is 1737, distributed under 278 orders, which with the number of species is enumerated in a subsequent page, as showing at a glance the contents of the work.

the hopes of any further help from his valuable pen. In these circumstances, the late Rev. Mr. Mack, with his accustomed generosity, kindly offered to aid in their preparation, but he had not proceeded far, when his sudden death deprived society in India of one of its brightest ornaments.

These circumstances will, it is hoped, in some measure, excuse the delay that has occurred in the appearance of the Catalogue. It is now presented to the public under all these disadvantages, with the hope that some apology for the defects that may be apparent in its *final* completion, will be admitted from the consideration that this task has devolved on one who feels herself wholly unequal to the performance, and has yet been impelled by the strongest feelings of conjugal affection to undertake it.*

RACHEL S. VOIGT.

Serampore, 30th July, 1845.

* Since the above was written, an unfinished letter has been found among Mr. Griffith's papers addressed to Mr. Marshman, containing some directions regarding the completion of this Volume, and expressing his opinion of the merits of the work, of which the following is an extract. "As regards the merits of the work," he says:

"It is the most comprehensive and scientific Catalogue of the kind that has appeared, 'Roxburgh's Hortus Bengalensis' the only other one being, at this advanced period of Botany, incomplete, and arranged according to an Artificial not a Natural System. In this Catalogue, with the name of the plant you have access to all known information regarding it, either directly in the book itself, at least as regards valuable properties, or indirectly, through the copious list of Synonymes. Therefore characters only require to be supplied to make this a complete Flora of the Environs of Calcutta.

"It gives the general Geographical distribution of each of the Families, two hundred and seventy-eight in number, and a good deal of information regarding the specific distribution of the Indian species. And as each habitat is given to each species,—not a vague one of India Orientalis, but very generally specific ones,—from it a complete Catalogue, as far as yet known of the distribution of Indian forms, may be compiled.

"It gives a sufficiently copious and select Synonymy and reference to plates, so that as I have said, the possession of the name of the plant puts you in the way of possessing all known information regarding it, by merely turning to the books which are quoted.

"It gives, wherever the properties are tolerably uniform, the characteristic ones under each family, and in all cases the properties (the knowledge of which constitutes that very economic branch of Botany, Economic Botany,

well worthy the attention of Government) under each plant, with the authorities for the same.

"It gives the habit of the Plant, with some information regarding the flower, the native country, and time of flowering and seeding, from consultation of the last parts of which much instruction may be derived as to the selection of species for introduction, the necessity of changing the mode of cultivation, etc.

"It gives in all definable cases the vernacular names, and these appear to have been obtained by no common care, and consequently to lose in a great measure the usual inapplicability.

"Lastly. It gives a list of desiderata for introduction, generally founded on those principles without which introductions of plants become of no avail. To this the attention of all Indian Horticulturalists should be chiefly guided."

ENUMERATION

OF THE

ORDERS, GENERA AND SPECIES

IN THIS VOLUME.

No.	*Orders.*	*Gen.*	*Sp.*	*P.*
1.	Ranunculaceæ, ..	9	30	1
2.	Papaveraceæ, ..	6	12	5
	S. O. Fumarieæ, ..	2	6	7
3.	Nymphæaceæ, ..	2	6	8
4.	Nelumbiaceæ, ..	1	1	9
5.	Myristicaceæ. ..	1	5	10
6.	Magnoliaceæ, ..	5	11	11
7.	Winteraceæ, ..	1	1	13
8.	Anonaceæ, ...	6	31	13
	Schizandreæ, ..	2	3	17
9.	Dilleniaceæ, ..	4	9	17
10.	Apiaceæ, ...	24	33	19
11.	Hederaceæ, ..	4	11	24
12.	Grossulaceæ, ..	1	1	25
13,	Escalloniaceæ, ..	1	1	26
14.	Berberaceæ, ..	2	4	26
15.	Vitaceæ, ...	2	27	27
16.	Pittosporaceæ, ..	3	5	30
17.	Olacaceæ, ...	4	6	31
18.	Francoaceæ, ..	1	1	32
19.	Œnotheraceæ, ..	5	17	32
	S. O. Trapeæ, ..	1	2	34
	S. O. Halorageæ, ..	1	4	35
20.	Combretaceæ, ..	7	32	35
21.	Alangiaceæ, ..	2	3	40
22.	Rhizophoraceæ, ..	5	9	40
23.	Memecylaceæ, ..	1	2	42
24.	Melastomaceæ, ..	6	7	43
25.	Myrtaceæ, ...	12	55	45
	S. O. Barringtonieæ,	3	7	51
26.	Lecythidaceæ, ..			52
27.	Philadelphaceæ, ..	1	1	55
28.	Hamameliaceæ, ..	1	1	53
29.	Cornaceæ, ...	1	1	53
30.	Loranthaceæ, ..	1	2	53
31.	Cucurbitaceæ, ..	13	33	54
	S. O. Nhandirobeæ,	1	1	60
32.	Loasaceæ, ...			60
33.	Cactaceæ, ...	6	48	64
34.	Homaliaceæ, ..	1	4	64
35.	Mesembryanthemaceæ,	2	3	64
36.	Begoniaceæ, ..	1	9	65
37.	Brassicaceæ, ..	40	88	66
38.	Capparidaceæ, ..	7	17	73
39.	Resedaceæ, ..	1	6	75
40.	Violaceæ, ...	3	9	76
	S. O. Sauvagesieæ,			77
41.	Samydaceæ, ..	1	6	78
42.	Moringaceæ, ..	1	1	78
43.	Droseraceæ, ..	2	2	79
	S. O. Parnassieæ, ..			80

No.	*Orders.*	*Gen.*	*Sp.*	*P.*
44.	Frankeniaceæ, ..			80
45.	Passifloraceæ, ..	3	24	80
46.	Papayaceæ, ..	1	1	82
47.	Flacourtiaceæ, ..	2	12	83
48.	Pangiaceæ, ..	1	2	84
49.	Turneraceæ, ..	1	2	85
50.	Bixaceæ, ...	1	1	85
51.	Garciniaceæ, ..	5	17	86
52.	Canellaceæ, ..	1	1	88
53.	Caryocaraceæ, ..			88
54.	Marcgraaviaceæ, ..			89
55.	Hypericaceæ, ..	3	7	89
56.	Ternstromiaceæ, ..	7	10	90
57.	Aceraceæ, ...	2	3	92
58.	Sapindaceæ, ..	14	42	92
	S. O. Millingtonieæ,	1	3	96
59.	Œsculaceæ, ..	1	2	97
60.	Polygalaceæ, ..	4	6	97
61.	Krameriaceæ, ..			98
62.	Vochyaceæ, ..			99
63.	Elatinaceæ, ..	1	2	99
64.	Linaceæ, ..	1	9	100
65.	Hugoniaccæ, ..	1	1	101
66.	Chlenaceæ, ..			101
67.	Cistaceæ, ..	1	3	101
68.	Reaumuriaceæ, ..			102
69.	Sterculiaceæ, ..	40	69	102
70.	Malvaceæ, ..	16	112	111
71.	Elæocarpaceæ, ..	3	9	122
72.	Dipterocarpaceæ, ..	4	10	123
73.	Tiliaceæ, ..	5	32	126
74.	Lythraceæ, ..	11	21	129
75.	Meliaceæ, ..	17	26	132
76.	Cedrelaceæ, ..	6	7	136
77.	Humiriaceæ, ..			138
78.	Citraceæ, ..	16	36	138
79.	Spondiaceæ, ..	2	7	143
80.	Rhamnaceæ, ..	10	28	144
81.	Chailletiaceæ, ..	1	1	148
82.	Burseraceæ, ..	7	14	148
83.	Euphorbiaceæ, ..	14	143	151
84.	Empetraceæ, ..			165
85.	Fouquieraceæ, ..			165
86.	Celastraceæ, ..	6	26	165
	S. O. Hippocrateeæ,	2	8	167
	S. O. Trigonieæ, ..			169
87.	Staphyleaceæ, ..	1	1	169
88.	Malpighiaceæ, ..	9	17	169
	S. O. Erythroxyleæ,	1	4	171
89.	Portulacaceæ, ..	6	13	172
90.	Silenaceæ, ..	7	43	174

No.	Orders.	Gen.	Sp.	P.
91.	Alsinaceæ, ..	6	9	177
92.	Tamaricaceæ, ..	1	2	178
93.	Illecebraceæ, ..	4	7	179
94.	Ochnaceæ, ..	2	3	180
95.	Simarubaceæ, ..	1	1	181
96.	Rutaceæ, ..	2	4	182
97.	Zygophyllaceæ, ..	2	3	183
98.	Xanthoxylaceæ, ..	5	17	184
99.	Geraniaceæ, ..	4	22	186
100.	Balsaminaceæ, ..	2	3	119
	S. O. Tropæoleæ, ..	1	1	190
101.	Oxalidaceæ, ..	3	12	190
102.	Coriariaceæ, ..	1	1	192
103.	Surianaceæ, ..			193
104.	Limnanthaceæ, ..			192
105.	Rosaceæ, ...	8	37	193
	S. O. Pomeæ, ..	7	15	197
	S. O. Amygdaleæ,	4	8	199
	S. O. Sanguisorbeæ,	1	2	201
106.	Fabaceæ, ...	114	515	201
107.	Connaraceæ, ...	2	4	264
108.	Chrysobalanaceæ,	2	2	265
109.	Calycanthaceæ, ..	2	2	266
110.	Cunoniaceæ,			266
111.	Saxifragaceæ, ..	3	3	267
112.	Crassulaceæ, ...	3	7	267
113.	Amyridaceæ, ...	1	2	269
114.	Anacardiaceæ, ..	12	37	269
115.	Quercaceæ, ...	2	14	276
116.	Betulaceæ,			278
117.	Scepaceæ, ...	1	1	278
118.	Hensloviaceæ,			279
119.	Trewiaceæ, ...	1	2	279
120.	Urticaceæ, ...	18	102	279
	S. O. Ceratophylleæ,	1	1	293
121.	Ulmaceæ, ...	3	6	293
122.	Antidesmaceæ, ..	2	10	294
123.	Myricaceæ, ...	2	3	295
124.	Juglandaceæ, ..	2	2	296
125.	Casuarinaceæ, ..	1	5	297
126.	Datiscaceæ, ...	1	1	297
127.	Lacistemaceæ,			298
128.	Chloranthaceæ, ..	1	2	298
129.	Saururaceæ, ...	1	1	298
130.	Piperaceæ, ...	1	13	299
131.	Salicaceæ, ...	1	2	300
132.	Platanaceæ, ..			301
133.	Balsamaceæ, ...			301
134.	Monimiaceæ, ..	1	1	302
135.	Atherospermaceæ,			302
136.	Podostemaceæ, ..			302
137.	Callitrichaceæ, ..			302
138.	Santalaceæ, ...	1	1	303
139.	Elæagnaceæ, ...	1	5	303
140.	Thymelaceæ, ..	2	3	304
141.	Hernandiaceæ, ..	2	2	305
142.	Aquilariaceæ, ..	1	1	305
143.	Proteaceæ, ...	2	2	306
144.	Lauraceæ, ...	11	34	306
145.	Illigeraceæ, ...	1	1	311
146.	Cassythaceæ, ..	1	1	311
147.	Penæaceæ, ...			312
148.	Nepenthaceæ, ..	1	1	312
149.	Aristolochiaceæ, ..	2	12	312
150.	Amarantaceæ, ..	13	45	314
151.	Chenopodiaceæ, ..	9	21	319
152.	Tetragoniaceæ, ..	2	2	322
153.	Phytolaccaceæ, ..	3	6	323
154.	Polygonaceæ, ..	7	29	324
155.	Petiveriaceæ, ..	1	1	327
156.	Scleranthaceæ, ..	1	1	327
157.	Nyctaginaceæ, ..	5	9	328
158.	Menispermaceæ, ..	7	20	329
159.	Lardizabalaceæ, ..	1	1	332
160.	Brexiaceæ, ..	1	2	332
161.	Ericaceæ, ..	1	1	333
162.	Vacciniaceæ, ..	2	6	333
163.	Epacridaceæ, ..			334
164.	Primulaceæ, ..	5	7	334
165.	Myrsinaceæ, ..	10	39	335
166.	Sapotaceæ, ..	7	16	339
167.	Diospyraceæ, ..	3	23	343
	S. O. Styraceæ, ..	2	6	346
168.	Iliciaceæ, ..	4	4	347
169.	Nolanaceæ, ..	1	4	348
170.	Cuscutaceæ, ..	1	4	349
171.	Convolvulaceæ, ..	17	99	
172.	Polemoniaceæ, ..	4	6	365
173.	Cobæaceæ, ..			366
174.	Hydroleaceæ, ..	2	2	366
175.	Lobeliaceæ, ..	4	8	
176.	Campanulaceæ, ..	5	24	368
177.	Sphenocleaceæ, ..	1	1	371
178.	Stylidiaceæ, ..	1	1	371
179.	Goodeniaceæ, ..	1	1	372
180.	Scaevolaceæ, ..	1	1	372
181.	Cinchonaceæ, ..	42	145	373
182.	Lygodysodeaceæ, ..			396
183.	Loniceraceæ, ..	3	11	397
184.	Galiaceæ, ..	5	7	399
185.	Calyceraceæ, ..			400
186.	Matricariaceæ, ..	128	233	400
187.	Dipsaceæ, ..	2	4	433
188.	Valerianaceæ, ..	4	7	434
189.	Brunoniaceæ, ..			436
190.	Plantaginaceæ, ..	1	15	436
191.	Globulariaceæ, ..			438
192.	Salvadoraceæ, ..			438
193.	Plumbaginaceæ, ..	2	4	438
194.	Hydrophyllaceæ, ..			439
195.	Cordiaceæ, ...	2	12	439
196.	Boraginaceæ, ..	16	38	442
197.	Lamiaceæ, ...	45	111	447
198.	Verbenaceæ, ..	19	95	464
199.	Myoporaceæ, ..	1	2	474
200.	Selaginaceæ, ..	1	1	474
201.	Pedaliaceæ, ..	3	3	474
202.	Bignoniaceæ, ..	11	37	475
203.	Cyrtandraceæ, ..	3	3	480
204.	Acanthaceæ, ..	41	110	480
205.	Pinguiculaceæ, ..	1	5	494
206.	Gesneraceæ, ..	3	4	494
207.	Orobanchaceæ, ..	2	4	496
208.	Scrophulariaceæ, ..	30	83	496
209.	Solanaceæ, ..	11	63	508
210.	Cestraceæ, ...	1	2	518
211.	Gentianaceæ, ..	6	13	519
212.	Spigeliaceæ, ..			522
213.	Apocynaceæ, ..	33	69	522
214.	Retziaceæ, ...	1	1	533
215.	Asclepiaceæ, ..	34	66	533
216.	Loganiaceæ, ..	2	2	545
217.	Potaliaceæ, ..			546
218.	Oleaceæ, ...	7	28	546
219.	Jasminaceæ, ..	2	37	549
220.	Gnetaceæ, ...	1	2	553
221.	Cycadaceæ, ..	2	5	554
222.	Pinaceæ, ...	8	26	555
223.	Taxaceæ, ...	4	8	559
224.	Equisetaceæ, ..	1	1	560
225.	Zingiberaceæ, ..	14	119	561
226.	Marantaceæ, ..	4	30	574
227.	Musaceæ, ...	4	15	578
228.	Amaryllaceæ, ..	36	154	580
229.	Haemodoraceæ, ..	1	2	599
230.	Burmanniaceæ, ..	1	1	599

No.	*Orders.*	*Gen.*	*Sp.*	*P.*
231.	Taccaceæ, ...	1	4	600
232.	Iriaceæ, ...	31	171	601
233.	Bromeliaceæ, ..	5	23	614
234.	Hydrocharaceæ, ..	5	6	617
235.	Orchiaceæ, ..	59	202	619
236.	Apostasiaceæ, ..			635
237.	Cocoaceæ, ...	23	58	635
238.	Pontederaceæ, ..	1	5	644
239.	Melanthaceæ, ..	8	8	645
240.	Smilaceæ, ...	9	33	647
241.	Gilliesiaceæ, ..			651
242.	Dioscoreaceæ, ..	2	17	651
243.	Liliaceæ, ...	41	226	653
244.	Commelynaceæ, ..	5	19	676
245.	Butomaceæ, ..	1	2	679
246.	Alismaceæ, ..	2	8	679
247.	Juncaceae, ...	1	1	681
248.	Philydraceae, ..			682
249.	Pandanaceae, ..	1	11	682
250.	Cyclanthaceae, ..	1	1	683
251.	Araceae, ...	21	56	684
252.	Lemnaceae, ..	2	5	692
253.	Typhaceae, ...	1	2	693
254.	Najaceae, ...	3	9	693
255.	Triglochinaceae, ..			695
256.	Panicaceae, ..	82	240	695
257.	Cyperaceae, ..	16	69	720
258.	Desvauxiaceae, ..			729
259.	Restiaceae, ...	2	2	729
	S. O. Eriocauloneae,	1	5	730
260.	Xyridaceae, ..	1	1	731
261.	Rafflesiaceae, ..			732
262.	Cytinaceae, ..			732
263	Balanophoraceae, ..			732
264.	Cynomoriaceae, ..			732
265.	Polypodiaceae, ..	13	33	734
266.	Gleicheniaceae, ..	1	1	736
267.	Osmundaceae, ..	1	4	736
268.	Danæaceae, ..			737
269.	Ophioglossaceae, ..	2	4	737
270.	Lycopodiaceae, ..	2	7	738
271.	Marsileaceae, ..	1	1	739
272.	Salviniaceae, ..	1	3	739
273.	Bryaceae, ...	2	2	740
274.	Marchantiaceae, ..			741
275.	Characeae, ...	1	3	742
276	Agaricaceae, ..	2	2	742
277.	Parmeliaceae, ..			743
278.	Fucaceæ, ...			745

Total of		
Orders.	Genera.	Species.
278	1737	5515

PRINCIPAL ABBREVIATIONS EMPLOYED IN THIS VOLUME.

♄ A tree. 5 A small tree. ♆ A shrub. ♄ An undershrub.
♃ A perennial. ♂ A biennial. ☉ An annual. ◡ A climber.
⌒ A twining plant. ⌣ A Creeper. Fl. Flowers. Fr. Fruit.
H. S. Hot season. R. S. Rainy season. C. S. Cold season. 0. None.

Ach.—Acharius. A Swedish professor and writer on Lichens.
Adans.—Adanson. A French systematic botanist.
Afzel.—Afzelius. A Swedish professor.
Ait.—Aiton. Superintendent of the King's Garden at Kew.
Ait. Hort. Kew.—Aiton, Hortus Kewensis.
All. (*pedem.*)—Allioni, (Carolus) Flora Pedemontana, 3 vols. 1785.
Amm. ruth.—Amman, (Johan.) Stirpium rariorum in Imperio Rutheno sponte provenientium Icones et Descriptiones, 1739.
Andr. B. Repos.—The Botanist's Repository, by Henry Andrews, 10 vols. 4to. London, 1797, et seq.
Ann. mus.—Annales du Museum d'Histoire Naturelle, 24 vols. 4to. Paris, 1802, et seq.
Arn.—Arnott, (G. A. Walker.)
Arth. Hamilt. Mon.—A Monograph by Arth. Hamilton.
Asiat. Reser.—Asiatic Researches.
Aubl.—Aublet. A French traveller in Guiana.

B. Cab.—Botanical Cabinet, by Conrad Loddiges and Sons, 14 vols.
B. Mag.—Botanical Magazine, (Curtis's) formerly conducted by Sims, now by Sir William Hooker.
B. Misc.—Botanical Miscellany, (by W. J. Hooker.)
B. Reg.—Botanical Register, (Ker's) now conducted by Professor Lindley.
Balbis.—Balbis, (Joh. Baptist.) A French Professor of Botany.
Balb-diss.—Balbis. Miscellanea Botanica, 4to. 1804.
Banks. Herb.—Banksian Herbarium.
Bartl.—Bartling, (Th. Fr.); Ord. Nat. Plantarum.
Barton's Coll. mat. med.—Barton's Collection, Materia Medica.
Bauer Ill. fl. norf.—Bauer, (Ferdin.) Illustrationes Floræ Novæ Hollandiæ, fol. 1813.
Bauh.—Bauhin brothers, (Johannes and Caspar.) Professors of medicine—published 1620-1650.
J. Bauh.—Bauhin, (Johannes.)

Baum.—Baumgarten, (J. C.) M.D. of Schasburgh in Transylvania. A botanist.

Beauv-agrost.—Beauvois, (Palisot de) Essai d'une nouvelle Agrostographie, 1 vol. Paris, 1812.

Beech. voy. pt. pl.—Beechey. A well known English navigator. Plants described in the account of his voyage, &c.

Bennet.—Bennet. Asst. Conservator of the Banksian Herbarium.

Benth.—Bentham, (Geo.) F. L. S.

Benth. Lab. gen. and sp.—Bentham. Labiatarum Genera et Species.

Benth. scrophul. ind.—Bentham. Scrophularineæ Indicæ.

Berg.—Bergius, (P. J.)

Bernh.—Bernhardi. A German botanist.

Bertol.—Bertolini. A writer upon the Flora of Italy.

Bieb.—Bieberstein. A Russian botanist of note.

Bivon.—Bivona. A Sicilian botanist.

Bl. Bijdr.—Blume, (C. L.) Bijdragen tot de Flora von Nederlandsche Indië.

Bl. Cat.—Blume's (C. L.) Catalogue.

Bl. in Diar. batav.—Blume, (C. L.) in the Batavian Diary.

Bl. Java.—Blume's (C. L.) Flora of Java.

Bl. Rumph.—Blume, (C. L.) Rumphia.

Blackw. herb.—Blackwell, (Eliz.) A curious Herbal, containing 600 cuts of the useful plants, 2 vols. fol. London, 1737.

Blane.—Blane, (Gilbert.)

Bocc.—Boccone, (Paolo) 1697.

Boerh.—Boerhaave, (Hermannus.) A Dutch botanist, 1710.

Booth.—Booth, (Dr.)

Bork.—Borckhausen. A writer on the Flora of Hesse Darmstadt.

Bosc.—Bosc. A French botanist and traveller in N. America.

Bojer. Hort. Maurit.—Bojer's Hortus of the Mauritius.

Br. (or R. Br.)—Brown, (Robert.) The first botanist of the age.

Brown pr. fl. norf.—Brown. Prodromus Floræ Novæ Hollandiæ.

Browne. jam.—Browne's (Patrick) Civil and Natural History of Jamaica.

Brid.—Bridel.

Brongn.—Brongniart, (Adolphe.) A French botanist.

Brot. fl. lusit.—Brotero. Flora Lusitanica.

Buch.—Dr. Francis Hamilton, (formerly Buchanan.)

Buch. Herb.—Buchanan's Herbarium.

Buch. MSS.—Buchanan's Manuscripts.

Buch. journ. Mysore.—Buchanan's Mysore Journal.

Buchoz.—Buchoz, (Pierre Joseph) Collection des Fleurs. Paris.

Bull. champ.—Bulliard. Histoire des Champignons de la France, 1798.

Bull. herb.—Bulliard. Herbier de la France, 1780.

Bunge. enum. pl. chin.—Bunge's plants of China.

Burch.—Burchell, (Wm.) A South African traveller and botanist.

Burm. afric.—Burmann's (Johannes) African plants.
Burm. zeyl.—Thesaurus Zeylanicus, by J. Burmann.
Burm. Ind.—Flora Indica, by N. L. Burmann.

C. G. H.—Cape of Good Hope.
Cass.—Cassini. A French botanist.
Catal. Ceyl. pl.—Catalogue of Ceylon plants.
Cat. Car.—Catesby, (Marsh) Natural Hist. of Carolina, Florida, &c. 2 vols. London, 1741.
Cavan. ic.—Cavanilles, (Ant. Jos.) Icones et Descriptiones plantarum quæ aut sponte in Hispania crescunt aut in Hortis hospitantur, 6 vols. fol. Madrid, 1791-1800.
Cham. and Schlect.—Chamisso and Schlectendal.
Chois.—Choisy. A Swiss botanist.
Clarke and Guss.—Clarke and Gussone of Naples.
Colebr.—Colebrooke, (H. T.) A well known English writer on Indian plants.
Commel. Hort. Am.—Commelyn, (Caspar) Horti Medici Amstelodamensis rariorum Plantarum Descriptio et Icones, 2 vols. 1703.
Commers. in Poir. Encyl.—Commerson in Poiret's Encyclopedia.
Crantz.—Crantz. An Austrian botanist.
Cunningh.—Cunningham.
Curt. Lond.—Curtis, (William) Flora Londinensis, 1777.
Cyril.—Cyrilli. An Italian botanist.

DC.—De Candolle, (Prof. Aug. Pyr.)
DC. pr.—De Candolle. Prodromus Systematis Naturalis Regni Vegetabilis.
DC. Cat. Hort. Monspel.—De Candolle, (Prof. Aug. Pyr.) Catalogus Horti Monspeliensis, 1777.
DC. fl. fr.—De Candolle, (Prof. Aug. Pyr.) et Lamark, Flore Françoise.
DC. leg. mem.—De Candolle, (Prof. Aug. Pyr.) Memoirs sur les Legumineuses.
DC. pl. grass.—De Candolle, (Prof. Aug. Pyr.) Plantarum historia succulentarum, 1799.
DC. reg. veg.—De Candolle, (Prof. Aug. Pyr.) Regni Vegetabilis Systema Naturale.
DC. (Alph.)—De Candolle, (Alphonse) son to A. P. De C.
Delarb.—Delarbre, (Antoine.)
Deless. ic. Select.—Delessert, (Benj.) Icones Selectæ plantarum in system. univers descriptarum, 1820.
Desf. fl. atl.—Desfontaine. (Rene Louiche) Flora Atlantica, 2 vols. 4to. Paris, 1798—1799.
Desf. mem. Mus par.—Desfontaine. (Rene Louiche) Memoires de l'Academie Royale des Sciences, 4to. Paris.
Desv-Journ.—Desvaux. Journal Botanique, 8vo. 1808.
Dicks.—Dickson. An English Criptogamic botanist.
Dietr.—Dietrich. A German gardener.

Dill. elth.—Dillenius, (John Jac.) Hortus Elthamensis, 2 vols. 1732.
Dill. Musc.—Dillenius, (John Jac.) Historia Muscorum, 4to. Oxon. 1741.
D. Don. pr. fl. Nep.—Don. (D.) Prodromus Floræ Nepalensis.
G. Don. in Mill. Dict.—Don. (G.) in Miller's Dictionary.
Donn. Hort. Cantab.—Donn. Hortus Cantabrigiensis, 1796.
Dougl.—Douglas. A collector of plants.
Dryand.—Dryander. A Swedish botanist.
Dub.—Dubois. A French botanist.
Duf.—Dufresne. A French writer upon Valerians.
Dum. cours. bot. cult.—Dumont Courset, Le Botaniste cultivateur, 5 vols. 1802.
Dun.—Dunal, (Mich. Felix.) [naceés.
Dun. Anon.—Dunal, (Mich. Felix.) Monographie de la Famille des Anno-

E. B.—English Botany, by Sowerby, 36 vols.
Ehret.—Ehret, (Geo. Dion.)
Ehrh.—Ehrhart. A German botanist.
Ell. fl. car.—Elliot, Flora of Carolina.
Endl. gen. pl.—Endlicher. Genera plantarum.
Endl. ichnogr.—Endlicher. Iconographia.

Fenill.—Feniller. A Chilian botanist.
Fisch.—Fischer. A Russian botanist.
Fl. Dan.—Flora Danica, by Oeder, Vahl, Hornemann, Liebmann and others; 1761, et seq.
Fl. Wett.—Flora der Wetterau, 1799.
Forsk. descr.—Forskaol's descriptions, etc.
Forsk. fl. Ægypt. Arab.—Forskaol, Flora Ægyptiaco-Arabica, 4to. 1745.
Forst. fl. nov.—Forster's Flora, etc.
Forst. gen, pl.—Forster's Characteres generum plantarum quas in Itinere ad Insulas Maris Australis, etc. —4to. 1776.
Fraz.—Frazer. A gardener and collector of plants in North America.

Gaertn. fr.—Gaertner, (Josephus) De fructibus et seminibus plantarum, 2 vols. 4to. 1788.
Garc. ab. hort. arom.—Ab. Horto seu del heurto, (Garcias,) aromatum et simplicium aliquot medicamentorum historia, 1567.
Gat. fl. Mont.—Gaterau, Description des Plantes qui croissent aux environs de Montauban, 1789.
Ger.—Gerard, (John) 1797.
Gilib.—Gilibert. A Lithuanian botanist.
Gmel.—Gmelin. A Russian botanist and traveller in Siberia.
Gooden.—Goodenough, Bishop of Carlisle. An English botanist.
Grah.—Graham, (Dr. J.) Professor of Botany at Edinburgh.
Grah. Cat. B. J. pl.—Graham's (J.) Catalogue of Bombay plants.

W. Griff. Assam Reser.—Griffith's (W.) Assam Researches.
Gronov.—Gronovius. A botanist of Leyden.

Habl.—Hablizl. A Russian botanist.
Hall.—Haller. A Swiss botanist.
Ham.—Hamilton, (Dr. Francis) formerly Buchanan.
Hænke.—Hænke. A German botanist.
Haw. suppl. pl. succ.—Haworth, (A. H.) Synopsis Plantarum succulentarum, 1812.
Hb. Madr.—Herbarium, (Madras,) by Drs. Klein, Heyne, and Rottler.
Hb. Maurit.—Herbarium Mauritianum.
Hb. Lamb.—Herbarium, (Lambert's.)
H. B. Kth.—Humbold, Bompland, and Kunth.
H. C. G.—Honorable Company's Garden.
Hedw.—Hedwig. A German Cryptogamic botanist.
Heist.—Heister. A German botanist.
Herb. Amaryll.—Herbert's Amaryllideæ.
Herm. in herb. L'Herit.—Hermann in L'Heritier's Herbarium.
Hervey. gen. of S. African pl.—Hervey's genera of South African plants.
Hill.—Hillaire, (Aug. St.)
Hoffm. and Lk.—Hoffmanseg and Link, Flore Portugaise, 1806.
Hooker's bot. misc.—Hooker's Botanical Miscellany.
Hooker's exot. fl.—Hooker's Exotic flora, 3 vols. 8vo. 1825-1827.
Hook and Grev. ic. filic.—Hooker and Greville. Icones Filicum; Lond. 1829.
Hornem.—Hornemann. An eminent Danish botanist and professor.
Horsford pl. Jav.—Horsford's plants of Java.
Hort. Gotting.—Hortus Gottingensis.
Hortul.—Catalogi Hortulanorum.
Host Gram.—Host, (Nicot Thom) Icones et Descriptiones Graminum Austriacorum, 3 vols. 1801.
Houtt. Lin. pfl. syst.—Houttuyn, (Martin) des Ritters von Linné Pflanzensystem nach der Anleitung des Houttuynschen Werkes, 14 vols. 1777.
Huds.—Hudson. An English writer upon British plants.

Jack.—Jack, (Dr. William.) A most distinguished botanist.
Jacq. Amer.—Jacquin, (Nicolas Jos. von) stirpium Americanarum Historia, 1763.
Jacq. austr.—Jacquin, (Nicolas Jos. von) Floræ Austriacæ Icones, 5 vols. 1793.
Jacq. collect.—Jacquin, (Nicolas Jos. von) Collectanea ad Botanicum, 5 vols. 1786.
Jacq. ecl. Gram.—Jacquin, (Nicolas Jos. von) Eclogæ Botanicæ, 1811.
Jacq. fragm. bot.—Jacquin, (Nicolas Jos. von) Fragmenta Botanica, 1800.
Jacq. hort. schonbr.—Jacquin, (Nicolas Jos. von) Plantarum rariorum Horti Cæsarei Schœnbrunensis, 4 vols. 1797.

Jacq. hort. vind.—Jacquin, (Nicolas Jos. von) Hortus Botanicus Vindobonensis.

Jacq. icon.—Jacquin, (Nicolas Jos. von) Icones Plantarum Rariorum, 3 vols. 1781.

Jacq. Stap.—Jacquin, (Nicolas Jos. von.) Stapeliæ cultæ, 1806.

Juss.—Jussieu.

Juss. Adr.—Jussieu, (Adrien de.)

Kamp. amoen.—Kæmpfer, (Engelbert) Amœnitates Exoticæ, 1712.

Kaulf.—Kaulfuss.—A German writer upon Ferns.

Ker in recens. bot. repos.—Ker, (John Bellenden) Recensio Plantarum hucusque in Repositorio Botanicorum depictarum.

Koch.—Koch. Professor at Erlang.

Koen.—Koenig, (John Gerard.) A Danish botanist, and pupil of Linnæus, Physician to the Tranquebar Mission, 1768.

Kol. Gram.—Koeler, (G. L.) Descriptio Graminum in Gallia et Germania nascentium.

Kth.—Kunth. An eminent Prussian botanist.

Kunze.—Kunze. A German Cryptogamic botanist.

l. c.—locus citatus.

L. act. holm.—Linnæus in Kongl Soenska Vetenskaps academiens Hand lingar; Stockholm, 1739.

L. Amoen. acad.—Linnæi Amœnitates Academicæ, 1749.

L. Hort. Cliff.—Linnæus, Hortus Cliffortianus, 1737.

L. fl. zeyl.—Linnæus. Flora Zeylanica.

L. Mant.—Linnæus. Mantissa Plantarum, 1767.

L. spec.—Linnæus. Species plantarum, 1753.

L. fil. suppl.—Linnæus, (Carolus filius) Supplementum plantarum, 1781.

Labill.—Labillardiere.

Lag.—Lagasca, (Mariano) 1816-17.

Lam. dict.—Lamarck, (J. B. Monet de) Encyclopédie methodique Botanique; Paris, 1783, et seq.

Lam. fl. Fr.—Lamarck, (J. Be Monet de) Flore Française, 3 vols. 1778.

Lam. fl.—Lamarck, (J. B. Monet de) Illustration des genres.

Lamb.—Lambert, (Aylmer Bourke.)

Lamb. pin.—Lambert, (Aylmer Bourke) Description of the genus Pinus, 1803.

Lapeyr.—Lapeyrouse. A French writer upon the plants of the Pyrenees.

Laxm.—Laxmann. A writer on Siberian plants.

Ledeb.—Ledebour.

Lehm. nicot.—Lehmann. Generis Nicotianarum Historia, 1818.

Lesch.—Leschenault de la Tour.

L' Herit Stirp. nov.—L' Heritier. Stirpes novæ aut minus cognitæ: 1784, Paris.

L' Herit. Sert. angl.—L' Heritier. Sertum Anglicum, sive plantæ rariores ; 1788.

Lindl. Nat. Syst.—Lindley's Natural System of Botany.

Lindl. suppl.—Lindley's Supplement.

Lindl. gen. and spec.— Lindley's Genera and Species of Orchideous plants.

Lk. and Otto.—Link and Otto.

Lk. Abbild.—Link and Otto, Abbildungen and Beschreibungen seltener Pflanzen im Berliner garten.

Lob.—Lobelius.

Lockh.—Lockhart, (W.) Superintendent of the Trinidad botanical garden.

Lodd.—Loddiges.

Loisel.—Loiseleur. A French botanist.

Loud. Hort. Brit.—Loudon's Hortus Britannicus.

Loud. encl. of pl.—Loudon's Encyclopedia of plants.

Lour. fl. cochinch.—Loureiro's Flora Cochinchinensis, 1790.

Mart. sp.—Martius, (Carl. Phil. Fr. von) Genera et Species Palmarum Brasiliensium.

Mart. nov. gen.—Martius, (Carl. Phil. Fr. von) Nova Genera et Species Plantarum Brasiliensium.

Mass.—Masson, (Francis.) A collector of plants at the Cape and elsewhere.

Medik.—Medikus, (Fred. C.)

Meerb.—Meerburg.

Meisn.—Meisner.

Merat and Cass.—Merat and Cassini. French botanists.

Michx.—Michaux.

Mikan.—Mikan. A German writer on Brazilian plants.

Mirb.—Mirbel. A French Physiological botanist.

Moc. and Sessé.—Moçino and Sessé. Mexican botanists.

Moen.—Moench. A German botanist.

Monch. meth.—Moench. Methodus Plantas Horti et Agri Marburgensis describendi.

Moris. hist.—Morison, (Robt.) Historia Plantarum Universalis.

Müll.—Muller, (Otto Fred.) A Danish botanist.

Murr. comm. gott.—Murray, (Johannes Andreas) Prodromus Designationis Stirplum Gottingensium, 1770.

Nees.—Nees von Esenbeck, (C. G.)

o. c.—opus citatus.

Opiz.—Opiz, (P. M.)

Ort.—Ortega, (Caspar Gomez de.) A Spanish botanist.

Palis. flor. d'Owarc.—Palisot de Beauvois. Flore des Royaumes d'Owarc et de Benin.

Pall.—Pallas, (Peter Simon.) Flora Rossica, 1784.

Pers. Sgn.—Persoon's, (Chas. Henry) Synopsis Plantarum seu Enchiridion Botanicum, 2 vols. 1805.

Pet. Th.—Petit Thouars, (Du.)

Pet. Th. gen. madag.—Petit Thouars, (Du.) Genera Nova Madagascarensia.

Plenck. icon.—Plenck, (Jos. Jac.) Icones Plantarum Medicinalium, 1803, et seq.

Plum. et Burm.—Plumier, (Chas.) and J. Burmanno. Plantæ Americanæ.

Plum. fil.—Plumier. Traité des Fougéres de l'Amérique, 1705.

Pluk. alm.—Plukenet, (Leonard) Almagestum Botanicum, 1796.

Pohl. pl. braz.—Pohl's Brazilian plants.

Poir. dict.—Poiret. Encyclopédie methodique Dictionnaire de Botanique.

Pourr.—Pourret. A French botanist.

Pros. Alp. Ægypt.—Prosper Alpinus, de Plantis Ægypti liber, 1592.

Raddi.—Raddi, (Joseph.) An Italian Cryptogamic botanist, and traveller in Brazil.

Rafin.—Rafinesque, (C.) A modern writer on Botany.

Ramat.—Ramatuelle.

Red. pl. lil.—Redouté, (P. J.) Les Lillacées, 1802.

Rees' Cyclop.—Rees' Cyclopedia.

Reichenb.—Reichenbach, (Lodov.)

Retz. obs.—Retzius, (And. J.) Observationes Botanicæ, 1774.

Rheed. auct.—Rheede. Author of Hortus Malabaricus.

Rich. cat. h. med.—Richard, (Louis Claude) Catalogue; Hortus Medicus.

Rich. (A.)—Richard Achille, son to L. C. Richard.

Richt.—Richter, (Geo. Gott.)

Risso and Poit.—Risso and Poiteau.

Rohr skrift. naturh. selkh.—Rohr in "Skrifter af Naturhistoire Selskabet" of Copenhagen.

Röm and Sch.—Rœmer, (Joh. Jac.) and Schultes, (Joh. Aug.) Authors of Linnæi Systema Vegetabilium.

Roth nov. spec.—Roth, (Alb. Will.) Novæ Plantarum species præsertim Indiæ Orientalis.

Rottb. nov. act. hafn.—Rottboli, (C. F.) Descriptiones et Icones Plantarum rariorum. Hafniæ, 1773.

Rottl.—Rottler, (Dr.) of Tranquebar.

Roscoe.—Roscoe. An English botanist and writer upon Scitamineæ.

Royle, Ill.—Royle's Illustrations.

Roxb. Corom.—Roxburgh's Plants of the Coast of Coromandel.

Roxb. fl. ind. ed Carey.—Roxburgh's Flora Indica, edited by the Rev. Dr. Carey.

Roxb. H. Bengl.—Roxburgh's Hortus Bengalensis.

Rudg.—Rudge, (Edw.) An English writer on Botany.

Rumph. Amb.—Rumphius, (G. Ev.) Herbarium Amboinense.

Ruiz. and Pav.—Ruiz, (Hipp) and Pavon, (Jos.) Authors of the Flora Peruviana et Chilensis.

Sab.—Sabine.
Salisb. par Lond.—Salisbury, (Rich. Ant.) Paradisus Londinensis, 2 vols. London, 1805.
Salm. Dyck.—Salm Dyck, (the Prince of.) A noble German amateur.
Salz.—Salzmann.
Salt. trav.—Salt's travels.
Schmidt.—Schmidt. A Bohemian botanist.
Schott.—Schott. A traveller in Brazil.
Schousb. moroc.—Schousboe, (P. K. A.) Jagttagelser over vextriget i Morocco. Copenhagen, 1800.
Schleiden.—Schleiden. An eminent German physiologist and botanist.
Schkuhr. hand.—Schkuhr's (Christ.) Botanisches Handbuch, 3 vols. 1791.
Scop. carn.—Scopoli, (Joh. Ant.) Flora Carniolica, 1760.
Sm. and Sibth. fl. græc.—Smith and Sibthorp's Flora Græcæ, 6 vols. Lond. 1806.
Sloane, hist. jam.—Sloane, (Hans.) Voyage to Madeira, Barbadoes, Nevis, St. Christopher's, and Jamaica, 2 vols. 1707.
Sm. spicil.—Smith, (Jas. Edw.) Spicilegium Botanicum, 1791.
Smith exot. bot.—Smith, (Jas. Edw.) Exotic Botany, 1804.
Spreng. Neue Entdeck.—Sprengel. Neue Entdeckungen im ganzen Umfang der Pflanzenkunde, 1820.
Sprengl. syst.—Sprengel. Systema Vegetabilium. 5 vols.
Soland.—Solander. A Swedish botanist.
Sonnerat.—Sonnerat, (P.) Voyage a la Nouvelle Guinée, 1776.
Sut. fl. helv.—Satter. Flora Helvetica.
Steinh. Ann. sc. nat.—Steinhausen, Annales des Sciences Naturelles.
Swt. Brit. fl. gard.—Sweet's (R.) British flower garden, 1823.
Swz. fl. occid.—Swartz, Flora Indiæ Occidentalis, 3 vols. 1797.
Sower.—Sowerby. An English botanist and artist.

Tabern.—Tabernæmontanus, (Jac. Theod.) 1588.
Telf.—Telfair.
Ten.—Tenore. A Neapolitan botanist.
Thih.—Thibaud de Chanvalon, 1763. A French botanist.
Thore.—Thore. A French botanist.
Thonin.—Thonin. A French botanist.
Thuill.—Thuillier. A French botanist.
Till.—Tilli, (Mich. Aug.)
Thunb.—Thunberg, (Car. Petr.)
Thunb. fl. cap. ed. Schult.—Thunberg, (Car. Petr.) Flora Capensis, edited by Schultes.
Thunb. fl. Jap. rar.—Thunberg, (Car. Petr.) Flora Japonica, 1784.

Tournef.—Tournefort, (Pitton de.) A French botanist and traveller in Greece and Asia Minor, 1717.

Trans. Linn. Soc.—Transactions of the Linnæan Society.

Trans. Med. Phys. Soc. Cal.—Transactions of the Medical and Physical Society of Calcutta.

Trin.—Trinius. A writer on Grasses.

Turp.—Turpin. A French botanist and draughtsman.

Tussc.—Tussac. A French writer on the Flora of the Antilles.

Vahl. enum.—Vahl. (Prof. Martin) of Copenhagen.—Enumeratio Plantarum.

Vahl. Symb.—Vahl. (Prof. Martin.) Symbolæ Botanicæ, 1790.

Vail.—Vaillant. A French botanist and traveller.

Vent. jard. de Cels.—Ventenat, (Etienne Pierre) Description des Plantes nouvelles ou peu connues du Jardin de J. M. Cels; Paris, 1800.

Vent Malm.—Ventenat, (Etienne Pierre) Jardin de la Malmaison, 1803.

Vill. dauph.—Villars, (D.) Histoire des Plantes du Dauphinê, 1786.

Wall. Cat.—Wallich's Catalogue.

Wall. pl. as. rar.—Wallich. Plantæ Asiaticæ Rariores.

Wall. rept.—Wallich's Report.

Wall. tent. pl. Nep.—Wallich. Tentamen Floræ Nepalensis.

Waldst. and Kit. pl. rar. hung.—Waldstein and Kitaibel. Descriptiones et Icones Plantarum rariorum Hungariæ, 3 vols. 1802.

Wallr.—Waller. A writer on the Flora of Carolina.

Walth.—Walther, (Aug. Fred.)

Wats. dendr. brit.—Watson, (P. W.) Dendrologia Britannica, 1825.

Wein.—Weinmann, (J. Gul.)

Wendl. coll.—Wendland, (John Christ.) Collectio Plantarum; Hanover, 1805.

Wern. Soc.—Wernerian Society of Edinburgh.

Wight contrib.—Wight's Contributions.

Wight icon.—Wight's Icones.

Wight ill.—Wight's Illustrations of Indian Botany.

W. and A. prod.—Wight and Arnott. Prodromus Floræ Peninsulæ Indiæ Orientalis.

Willd. enum.—Willdenow, (Prof. Chas. Lud.) of Berlin, Enumeratio Plantarum horti Berolensis.

Willd. fl. maurit.—Willdenow, (Prof. Chas. Lud.) Description of Ammerson's plants from the Mauritius.

Zucc.—Zuccarini, (Professor.)

THE CATALOGUE IS FOUNDED ON

1. *Dr. Carey's* (Roxburgh's) *Hortus Bengalensis*, ↄ: a catalogue of about 3500 plants, which was the amount of species introduced into the Hon'ble Company's Garden, from its commencement to 1814.
2. *Dr. Carey's Garden Receipt-Book*, in which he was accustomed to put down the names of the plants introduced into his garden, and afterwards to affix marks of their success. A present from the late Mrs. Dr. Carey.
3. *Several printed Sheets*, (80 quarto pages,) embracing nearly the whole of the six first Linnæan Classes, limited to those species which had been cultivated in the Hon'ble Company's and the Serampore Gardens. This, Dr. Carey's last botanical work, was discontinued only by his death.
4. *Mr. Masters's Private Catalogue* of the Hon'ble Company's Garden.
5. *Dr. Wallich's Report to Government*, 21st Dec. 1840, enumerating such plants as had been distributed from the Hon'ble Company's Garden, from the beginning of 1836 to the end of November 1840.
6. A number of *Dried Specimens of Plants*, collected, with the Superintendent's permission, in the Hon'ble Company's Garden; and lastly,
7. *Private Papers* on botanical subjects, begun in 1830 and continued both during the life-time of Dr. Carey, and after his death, when the Superintendence of the Serampore Garden, in compliance with his wish, devolved on the Compiler.

THE CATALOGUE WILL CONTAIN

1. Remarks on each order, their general properties, and geographical (especially Indian) distribution.
2. The generic and specific names of the plants enumerated, with reference to the best authors and plates.
3. The Bengalee names of such plants as are indigenous, or commonly cultivated in Lower Bengal. These, though generally considered of little value, have been found very useful, *when shown, in their original dress*, to native gardeners, directed to go in search of particular plants.
4. The habit, flowering, and fruit-time, and the flowers of each individual plant.
5. Their habitats, properties, and use, as far as these are known. And, lastly,
6. An Appendix(*) to each order of such plants, as are thought desirable *and likely* to thrive in Lower Bengal. This has been added to aid horticulturists otherwise amply occupied in their selections, and if possible, to put an end to those injudicious and disappointing consignments, so frequently arriving from the nurseries in Europe.

GOVERNMENT BOTANICAL GARDENS
LIBRARY.
Section.....
No.....

CLASS FIRST.

EXOGENÆ, DC.

LINDL. NAT. SYST. p. 1.

OR FLOWERING PLANTS.

LIBRARY.

HORTUS SUBURBANUS CALCUTTENSIS.

ORDER I.—RANUNCULACEÆ, DC. Lindl. Nat. Syst. p. 5.

THE CROW-FOOT TRIBE.

This chiefly herbaceous, rarely shrubby order, abounding in species, is extensively diffused throughout the cold and temperate parts of the globe. Their total amount may, perhaps, be estimated at 700, of which the greater part are found in Europe, Siberia, and the Levant. About 80 species have been discovered in N. America; 32 in S. America; 30 in China; 21 in Australasia; 15 in N. Africa; 20 in S. Africa; 6 in Mexico; 5 in the W. Indies; and a few in Japan, Cochin China, and Sierra Leone. In the tropics, they are found in mountainous regions, from the highest Alpine ranges down to such vallies of hilly tracts as are sufficiently elevated to compensate for low latitude; and though a few species straggle down to the plains, as, in India, Ranunculus sceleratus and aquatilis, Wight *(Ill. p. 3.)* is, no doubt, right in asserting, that wherever, within the tropics, we meet with herbaceous forms of Ranunculaceæ, we may feel assured of having attained an elevation sufficient to place us beyond the influence of jungle fever. In 1818, according to De Candolle, the Indian forms of this order amounted only to 19. At present their number has risen to 135; viz. 32 species of *Clematis;* 3 of *Naravelia;* 18 of *Thalictrum;* 16 of *Anemone;* 1 of *Adonis;* 32 of *Ranunculus;* 3 of *Caltha;* 1 of *Trollius;* 1 of *Coptis;* 2 of *Isopyrum;* 2 of *Aquilegia;* 14 of *Delphinium;* 7 of *Aconitum;* 1 of *Actæa;* 1 of *Cimicifuga;* and 1 of *Pæonia.* Eight of these also belong to Europe.

"Acridity, causticity, and poison, are the general characters of this suspicious order, which, however, contains species in which these qualities are so little developed as to be innoxious. The caustic principle is, according to Kropfen, as cited by De Candolle, of a very singular nature; it is so volatile that, in most cases, simple drying, infusion in water, or boiling, are sufficient to dissipate it; it is neither acid nor alkaline; it is increased by acids, sugar, honey, wine, spirit, &c. and is only effectually destroyed by water and vegetable acids." *(Lindl.)* Notwithstanding their caustic

and poisonous properties, many species of this tribe have been used in medicine, as well internally as externally ; they are, however, now obsolete. One of the Himalayan species, *Aconitum ferox*, Wall., commonly called বিশ Bish, is a most virulent poison, used in the northern part of Hindoosthan for destroying tigers by means of poisoned arrows, shot from bows fixed near the tracks leading to their watering places. (*Colebrooke.*)

CLEMATIS, L. *(DC. prodr.* 1, *p.* 2;—*W. and A. prodr.* 1, *p.* 1.*) Virgin's Bower.*

1. *Flammula*, L. *(DC. l. c.)* ♄ ◡ S. Europe.—Fl. smallish, white,—May and June; fr. 0.
2. *Gouriana, Roxb.* (*Fl. Ind.* 2, *p.* 670;—*DC. pr.* 1, *p.* 3;—*W. and A. pr.* 1, *p.* 2;—*J. Grah. Cat. B. pl. p.* 1.) L. ♄ ◡ India, from Dindygul and the Neelgherries up to Deyra Dhoon, along the foot of the Himalayas. Fl. smallish, white,—Septbr.; fr. Jan. and Feb.
3. *Vitalba*, L. (*DC. pr.* 1, *p.* 3.,—*Jacq. fl. austr. t.* 308;—*E. B.* 9, *t.* 612.) ♄ ◡ Middle and South Europe, Tauria.—Fl. middle-sized, white, fragrant,—R. S., but rare; fr. 0.
4. *Wightiana*, Wall. *(W. and A. pr.* 1, *p.* 2;—*J. Grah. Cat. B. pl. p.* 1.*)* ♄ ◡ Neelgherries, Mahableshwur, and the adjoining Ghauts. Has been introduced into H. C. G. Fl.?
5. *grata*, Wall. (*Pl. as. rar.* 1, *t.* 98.) ♄ ◡ Nepal. Fl. small, yellowish, fragrant. Introduced here in 1840, but has not fl. yet.
6. *cylindrica*, Sims. (*B. M.* 29, *t.* 1160;—*DC. pr.* 1, *p.* 7.) ♄ ◡ N. America. Fl. large, blue,—June; fr. 0.
7. *Viorna*, L. (*DC. pr.* 1, *p.* 7;—*Jacq. ecl.* 1, *p.* 50, *t.* 32.) ♄ ◡ Virginia, Carolina. Fl. large, blue,—June, but rare.
8. *reticulata*, Walt. (*DC. pr.* 1, *p.* 7.—C. cordata, *B. M.* 43, *t.* 1816,) ♄ ◡ S. Carolina, Georgia. Fl. largish, pale purplish,—July; fr. 0.
9. *integrifolia*, L. (*DC. pr.* 1, *p.* 8;—*B. M.* 2, *t.* 65.) ♃. Hungary, Carniolia, Siberia, Pyrenees. Fl. large, indigo-coloured,—May and June; fr. August.
10. *ochroleuca*, Ait. (*DC. pr.* 1, *p.* 8.) ♃. Pennsylvania, Carolina. Fl. large, yellowish,—June, but rare : fr. 0.
11. *florida*, Thunb. (*Flor. jap. p.* 240;—*DC. pr.* 1, *p.* 8;—*B. M.* 22, *t.* 834.) ♄ ◡ Japan. Fl. very large, white,—C. S. Introduced in 1819, but has not fl. during the last twelve years.
12. *Viticella*, L. (*DC. pr.* 1, *p.* 9;—*B. M.* 16, *t.* 565.) ♄ ◡ Warmer parts of Europe. Fl. very large, beautifully purple, with dark veins. Introduced in 1825. Has not fl.

NARAVELIA, DC. (*pr.* 1, *p.* 10;—*W. and A. pr.* 1, *p.* 2.)

1. *Zeylanica*, DC. (*L. c.*,—*W. and A. l. c.*,—*J. Grah. Cat. B. pl. p.* 1.—Atragene zeylanica, *L*;—*Roxb. Corom.* 2, *t.* 188; *fl. ind.* 2, *p.* 670.) ছাগলবাটী *Chhagul-batee.* ♃. ◡ Ceylon. Both Peninsulas of India, Bengal, (Serampore,) &c. Fl. middle-sized, yellowish,—R. S;—fr. C. S.

THALICTRUM, L. (*DC. pr.* 1, *p.* 11 ;—*W. and A. pr.* 1, *p.* 2.) *Meadow Rue.* —From 1817, up to the present time, 34 species of this genus—one of the surest indicators of a cold climate—have been introduced into the Serampore Garden, but only the following two have flowered :—

1. *foliolosum*, DC. (*l. c. p.* 12.) ♃. Nepal, Kemaon, Khassya Mountains. Fl. small, yellowish,—August. Herb bitter ; used by the Natives in fever.
2. *flexuosum*, Jacq. (*Loud. hort. brit. p.* 229, *No.* 14,529.) ♃. Native place unknown. Fl. small, yellowish,—May and June ; fr. Aug.—Seeds received from the Liverpool Botanic Garden.

T. bracteatum, Roxb. (*Fl. ind.* 2, *p.* 671.) ♃. ⌣ N. Bengal. Introduced in 1797. Fl. C. S. (*Roxb.*) No doubt a species of Clematis.

RANUNCULUS, L. (*DC. pr.* 1, *p.* 26 ;—*W. and A. pr.* 1, *p.* 3.) *Crow-foot.*

1. *sceleratus*, L. (*DC. pr.* 1, *p.* 34 ;—*E. B.* 10, *t.* 681.—R. indicus, (*Roxb. fl. ind.* 2, *p.* 671.) ⊙ Europe, Siberia, Cochin China, India, (Serampore, Calcutta, &c.) Fl. small, yellow, and fr. C. S.—A very acrid plant ; when applied fresh, quickly producing a blister.—Besides Ranunculus aquatilis, L., a variety of which has been found about Saharunpore, this is the only species of Crow-foot hitherto discovered in the plains of tropical India. The Natives have no name for it, nor do they use it.
2. *bulbosus*, L. (*DC. pr.* 1, *p.* 41 ;—*E. B.* 8, *t.* 515 ;—*Roxb. H. B. p.* 43.) ♃. Europe, America, Kunawur. Fl. largish, bright yellow,—March and April ; fr. May. The whole plant, but especially the unripe fruit, very acrid.
3. *arvensis*, L. (*DC. pr.* 1, *p.* 41 ;—*E. B.* 2, *t.* 135.) ⊙ Middle and South Europe, Suen mountains, Kemaon. Fl. small, yellow,—Febr. and March ; fr. April. Poisonously acrid.
4. *muricatus*, L. (*DC. pr.* 1, *p.* 42 ;—*Sibth. fl. græc. t.* 522.) ⊙ S. Europe, along the Mediterranean. Fl. smallish, yellow,—Febr. and March ; fr. April.
5. *nodiflorus*, L. (*DC. pr.* 1, *p.* 43 ;—*Waldst. and Kit. pl. rar. hung.* 2, *p.* 192, *t.* 176.) ⊙ France, Hungary. Fl. small, yellow,—Febr. and March ; fr. April.

Eight other perennial species of Ranunculus, introduced between 1816 and 1828, could scarcely be kept alive during the hot season.

COPTIS, Salisb. (*DC. pr.* 1, *p.* 47.)

1. *Teeta*, Wall. (*Notes on the Drugs called Mishmee Teeta and Púcha Pat. Med. and phys. soc. Calcutta, vol.* 8, *p.* 85.—*W. Twining ; Notes on the medical properties of the root of the Mishmee Teeta, l. c.*) ♃. Mishmee mountains. Introduced into H. C. G. Fl. ?—*Root* pure bitter, tonic, and as such recommended by Twining.

ISOPYRUM, L. (*DC.* 1, *pr.* 1, p. 48.)

1. *fumarioides*, L. (*DC. l. c.*,—*Schkuhr. handb.* 2, *No.* 1531. *t.* 153.) ⊙ Siberia. Fl. small, white,—Febr. and March ; fr. April.

NIGELLA, L. (*DC. pr.* 1, *p.* 48.) *Fennel Flower.*

1. *sativa*, L. (*DC. l. c. p.* 49.)
   δ *indica*, *DC.* (*l. c.*—N. indica, *Roxb. fl. ind.* 2, *p.* 646.) কালজিরা *Kaljira.* ⊙ S. Europe, Asia Minor, Syria. Acclimated in the gardens of India. Domesticated about Serampore. Fl. largish, white, and fr. C. S.—*Seeds* formerly used as pepper. The Natives esteem them as a condiment and stomachic.
2. *hispanica*, L. (*DC. l. c.*,—*B. M.* 31, *t.* 1265.) ⊙ Spain, Barbary. Fl. large, blue, sometimes white,—Febr. and March ; fr. April.
3. *orientalis*, L. (*DC. l. c.*,—*B. M.* 31, *t.* 1264.) ⊙ Aleppo. Fl. largish, greenish-yellow, dotted with scarlet,—Febr. and March ; fr. April.
4. *damascena*, *L.* (*DC. l. c.*,—*B. M.* 1, *t.* 22.) ⊙ Countries along the Mediterranean. Fl. large, pale, blue,—Febr. and March ; fr. April.

AQUILEGIA, L. (*DC. pr.* 1, *p.* 50.) *Columbine.*

1. *vulgaris*, L. (*DC. l. c* ;—*E. B.* 5, *t.* 297.) ♃. Europe.—Fl. large, bluish purple, and fr. C. S.—Plant astringent.

DELPHINIUM, L. (*DC. pr.* 1, *p.* 51 ;—*W. and A. pr.* 1. *p.* 4.) *Larkspur.*

1. *Ajacis*, L. (*DC. l. c.* ;—*W. and A. l. c* ;—*Roxb. H. B. p.* 43 ;—*J. Grah. Cat. B. pl. p.* 1.) ⊙ Tauria. Acclimated in India.—Fl. largish, of various colours, and fr. C. S.—*Seeds* very acrid.
2. *Consolida*, L. (*DC. l. c.* ;—*E. B.* 26, *t.* 1839.) ⊙ Europe, N. America.—Fl. large, purplish blue,—Febr. and March ; fr. April.
3. *Oliverianum*, (*DC. l. c.*) ⊙ Bagdad.—Fl. large, bluish purple,—Febr. and March ; fr. April.

No ACONITUM or PÆONIA has ever flowered here.

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* *Clematis orientalis*, L. ♄ ◡ Levant. *C. chinensis.* Retz. ♄ ◡ China. *C. havanensis*, H. B. and Kth. ♄ ◡ Havannah. *C. balearica*, Rich. (C. calycina, Ait ; B. M. 24. *t.* 959.) ♄ ◡ Minorca. *C. caripensis*, Humb. ♄ ◡ Trinidad. *C. dioica*, L. ♄ ◡ Jamaica. *C. zanzibariensis*, Bojer. ♄ ◡ Zanzibar. *C. pedicellata*, Swt. (C. cirrhosa, Sims ; B. M. 27, *t.* 1070.) ♄ ◡ Majorca. *C. chlorantha*, Lindl. ; B. Reg. 15, *t.* 1234. ♄ ◡ Sierra Leone. *C. Munroiana*, Wight ; ill. t. 1, Neelgherries. *C. hedysarifolia*, DC. ; B. Reg. 7, t. 599. ♄ ◡ Burma. *C. smilacifolia*, Wall. Cat. ♄ ◡ Khassya Mountains.—*Ranunculus hirsutus*, Ait ; E. B. 21, t. 1504. ⊙ Europe. *R. trilobus*, Desf. ⊙ Greece.—*Ficaria ranunculoïdes*, Mönch. (Ranunculus Ficaria, L. ; E. B. 9, t. 584.) ♃. Europe.—*Garidella Nigellastrum*, L. ; B. M. 31, t. 1266. ⊙ France, Italy.—*Delphinium pubescens*, DC. ⊙ Mediterranean. *D. Aconiti*, L. ⊙ Levant. *D. peregrinum*, Willd. ⊙ Italy. *D. ambiguum*, L. ⊙ Barbary. *D. Virgatum*, Poir. ⊙ Syria. *D. Staphisagria*, L. ♂ S. Europe.

Of the Sub-Order, *Podophylleæ*, Lindl. Nat. Syst. p. 7, only *one* species has been found in India, viz. *Podophyllum Emodi*, Wall. in Sirmore and Gossainthan.

ORDER II.—PAPAVERACEÆ, Juss.—Lindl. Nat. Syst. p. 7.

THE POPPY TRIBE.

Annual or perennial herbs, rarely under-shrubs, with a milky juice. The total amount of species is about 66, of which 28 have been found in Europe; 7 in the Levant; 9 in N. America; 5 in Mexico; 5 in India; 3 in Persia; 2 in Siberia; 2 in N. Africa; 3 in China and Japan; 1 in N. Holland; and 1 in S. Africa. Most of them are annuals, 21 perennials and chiefly mountainous, and 2 shrubby.—Of the five Indian species, two belong to *Papaver*, and three to *Meconopsis*. One of the latter, M. nepalensis, DC., especially its root, is according to *D. Don.* (*Pr. fl. nep. p.* 98), very poisonous.—The medicinal properties of the juice of the poppy (*opium*) are well known, and their narcotic character is more or less traced throughout the whole order. The Sanguinaria canadensis, L, is, however, given in large doses, emetic and purgative, and, in smaller ones, stimulant, sudorific,, and expectorant. (*Barton's coll. mat. med.* 1. *p.* 37.)

PAPAVER, L. (*DC. pr.* 1, *p.* 117;—*W. and A. pr.* 1, *p.* 17.) *Poppy.*

1. *hybridum*, L. (*DC. l. c. p.* 118;—*E. B.* 1, *t.* 43.) ⊙ W. and S. of Europe. Fl. largish, deep red.—Febr. and March; fr. April.
2. *Argemone*, L. (*DC. l. c.*,—*E. B.* 9, *t.* 643.) ⊙ Europe. Fl. largish, scarlet,—Febr. and March; fr. April.
3. *dubium*, L. (*DC. l. c.*,—*E. B.* 9, *t.* 644.) ⊙ Europe. Fl. large, palish scarlet.—Febr. and March; fr. April.
4. *Rhoeas*, L. (*DC. l. c.*,—*E. B.* 9, *t.* 645;—*J. Grah. Cat. B. pl. p.* 6.) ⊙ ♈. Europe. Fl. large, scarlet,—Febr. and March; fr. April.
5. *somniferum*, L. (*DC. l. c. p.* 119.) *Opium-Poppy.* ⊙ Morea, Egypt, hotter parts of Asia. Fl. large,—Febr. and March; fr. April and May.

   α. nigrum. Fl. purplish. Seeds black.

   β. album. Fl. and seeds white. (Papaver somniferum, *E. B.* 30, *t.* 2145;—*Roxb. fl. ind.* 2, *p.* 571;—*W. and A. pr.* 1, *p.* 17;—*J. Grah. Cat. B. pl. p.* 6.) পোস্ত *Posto.*—Extensively cultivated in India. The *juice* expressed from the seeds, held to be very useful in chronic diarrhœa. (*Dr. Gibson.*) Their *oil* pure, sweet, for culinary purposes almost as good as olive oil.

Several varieties of *α* and *β* occur in our gardens, f. ex. fimbriato-rubrum, album and nigrum; pleno-rubrum; purpureum; pleno-album, &c.

ARGEMONE, L. (*DC. pr.* 1, *p.* 120;—*W. and A. pr.* 1, *p.* 17.) *Prickly Poppy.*

1. *mexicana*, L. (*DC. l. c.*,—*W. and A. l. c.*,—*Roxb. fl. ind.* 2, *p.* 571; —*B. M.* 7, *t.* 243;—*J. Grah. Cat. B. pl. p.* 6;—*Wight ill.* 1, *t.* 11.) বড়শেলকাটা *Buro-shelkanta.* ⊙ Mexico.—Domesticated all over tropical India. Fl. large, yellow,—fr. Jan., Febr. and March,—*Seeds* narcotic, especially when smoked with tobacco. (*Gardener's mag.* 6, *p.* 315;)—In the W. Indies, they are used for many purposes, seemingly without much benefit.—Lamp oil extracted from the seeds, employed by the poor in the Concans. (*Dr. Gibson.*)

ROMERIA, Medik. (*DC. pr.* 1, *p.* 122.)

1. *hybrida*, (*DC. l. c.*—Chelidonium hybridum, *L.*,—*E. B.* 3, *t.* 201.) *Violet horned Poppy.* ⊙ S. Europe, along the Mediterranean, England. Fl. large, purple,—Febr. and March; fr. April

GLAUCIUM, Tournef. (*DC. pr.* 1. *p.* 122.) *Horn Poppy.*

1. *corniculatum*, Curt. (*Lond.* 6, *t.* 32;—*DC. l. c.*)
   a. phœniceum, *DC.* (*l. c.*—Glaucium phœniceum, *Sm.*,—*E. B.* 20, *t.* 1433.) ⊙ England, France. Fl. large, scarlet,—Febr. and March; fr. April.

CHELIDONIUM, L. (*DC. pr.* 1, *p.* 122.) *Celandine.*

1. *majus*, L. (*DC. l. c. p.* 123;—*E. B.* 22, *t.* 1581.) ♃. Europe. Fl. smallish, yellow,—C. S.; but very rare.
2. *laciniatum*, Mill. (*DC. l. c.*) ♃. Germany, England. Introduced in 1820. Fl.?

CHRYSEIS, Lindl. (*B. Reg.* 23. *t.* 1948,—not Cass. nor Less.—*Eschsholzia*, Cham.,—*DC. pr.* 3. *p.* 344.)—Chamisso's name being merely a misspelling of Elsholtzia, a labiate genus, established by Willdenow in memory of Elsholtz, the father, must be excluded, though it was meant for Elsholtz, the son.—Chryseïs, Less. is a synonyme of Amberboa, DC., and Cryseïs, Cass. a section of it.

1. *californica*, Lindl. (Eschsholzia californica, *Cham*;—*DC. l. c.*;—*B. Reg.* 14. *t.* 1168;—*B. M.* 56. *t.* 2887.) ⊙ California. Fl. large, yellow,—Febr. and March; fr. April.
2. *crocea*, Lindl. (Eschsholzia crocea, *Benth.*;—*B. Reg.* 20, *t.* 1677;—*B. M.* 63. *t.* 3495.) ⊙ California. Fl. large, yellow,—Febr. and March; fr. April.

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* *Papaver persicum*, Lindl.; B. Reg. 19, t. 1570. ⊙ Persia. *P. amoenum*, Lindl.; B. Reg. app. of 1839, p. 56. N. India. Seeds from Dr. Falconer. *P. glabrum*, Royl. ill. p. 67. ⊙ Himalaya. *P. orientale*, L.; B. M. 2, t. 57. ⊙ Levant.—*Argemone mexicana*, L. β *ochroleuca*, Lindl; B. Reg. 16, t. 1343. ⊙ ϒ. *albiflora*, Lindl. (A. albiflora, Sims; B. M. 49, t. 2342.) ⊙ *A. grandiflora*, Swt.; B. Reg. 15, t. 1264; B. M. 58, t. 3073. ⊙ Mexico.—*Glaucium flavum*, Crantz; E. B. 1, t. 8. ♂ Europe. *G. fulvum*, Sm. ♂ ♃. S. Europe.—*Chryseïs compacta*, Lindl.; B. Reg. 23, t. 1948. ⊙ California.—

Hunnemannia fumariæfolia, Swt.; B. M. 58, t. 3061. ⊙ Mexico,—*Platystemon californicus*, Benth; B. M. 64, t. 3579. ⊙ California. *P. leiocarpus*, F. and M.—B. M, 66, t. 3750. ⊙ California.—*Platystigma lineare*, Benth.—B. M. 64, t. 3575. ⊙ California.

SUB-ORDER.—FUMARIEÆ, Lindl. Nat. Syst. p. 9.

THE FUMITORY TRIBE.

Herbaceous, mostly annual plants, inhabiting chiefly the temperate latitudes of the northern hemisphere. In all, they amount to about 70 species, of which 18 have been found in Europe; 18 in India; 11 in Siberia; 10 in N. America; 4 in S. Africa; 4 in Japan; 3 in the Levant; 2 in N. Africa; and 1 in Persia. The Indian species, besides 2 that are common to other countries, consist of 16 of *Corydalis;* 1 of *Dactylocapnos;* and 1 of *Macrocapnos.*

The herbs belonging to this tribe are filled with a watery, not milky, juice, and are bitterish, scentless, sudorific, and aperient. Their juice, formerly prescribed against abdominal obstructions, is now only used occasionally in cutaneous diseases. (*DC.*)

CORYDALIS, Vent. (*DC. pr.* 1, *p.* 128.)

1. *capnoides*, Pers. (*DC. l. c. p.* 129.)
   β. *lutea*, DC. (*l. c.*—Fumaria lutea, *Sm; E. B.* 9, *t.* 588.) ♃. Europe. Fl. largish, yellow,—and fr. C. S.
2. *glauca*, Pursh. (*DC. pr.* 1, *p*, 128.—Fumaria glauca, *Curt., B. M.* 5, *t.* 179.) ⊙ Canada. Fl. largish, rosy yellow,—Febr. and March; fr. April.
3. *claviculata*, DC. (*l. c. p.* 129.—Fumaria claviculata, *L., E. B.* 2, *t.* 103.) ⊙ Europe. Fl. small, yellowish-white,—Febr. and March; fr. April.
4. *aurea*, Willd. (*DC. l. c. p.* 128.—Fumaria aurea, *Mühl.; B. Reg.* 1, *t.* 66.) ⊙ Shady rocks in Pennsylvania, Virginia and Canada. Fl. largish, gold-coloured,—Febr. and March; fr. April.

FUMARIA, L. (*DC. pr.* 1, *p.* 129;—*W. and A. pr.* 1, *p.* 18.) *Fumitory.*

1. *parviflora*, Lam. (*DC. l. c. p.* 130;—*W. and A. l. c;*—*Roxb. fl. ind.* 3, *p.* 217;—*J. Grah. Cat. B. pl. p.* 6;—*E. B.* 9, *t.* 590;—*Wight ill.* 1, *t.* 11,* *A.*) বনশুল্‌ফা *Bunsulpha.* ⊙ Europe, Neelgherries, Candesh, Bombay, Bengal, (Serampore), &c. Nepal, Kemaon, Fl. very small, pale rose-coloured, dark purple tipped;—and fr. C. S.
2. *officinalis*, L. (*DC. l. c.,—W. and A. l. c.,—E. B.* 9, *t.* 589). ⊙ Europe. Fl. like those of *No.* 1;—and fr. C. S.

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* *Sarcocapnos crassifolius*, DC. ♃. N. Africa.—*Fumaria capreolata*, L. ⊙ S. Europe. *F. media*, Lois. (F. capreolata, Lightf. E. B. 14, t. 493.) ⊙ Europe.

ORDER III.—NYMPHÆACEÆ, Salisb.—Lindl. Nat. Syst. p. 10.

THE WATER-LILY TRIBE.

Floating plants, dispersed over various parts of the world, all perennial, and distinguished generally by large, beautiful flowers. Their number amounts to 29 species, of which 7 inhabit India; 6 N. America; 4 Europe; 3 S. America; 2 Egypt; 2 Siberia; 1 China; 1 Japan; 1 Madagascar; 1 S. Africa; and 1 the W. Indies. Of the 7 Indian forms, 1 belongs to *Euryale;* to *Barclaya;* and 5 to *Nymphæa.*

Their stems are bitter and astringent, and contain a considerable quantity of fæcula, which may be used as food. (*DC.*)

EURYALE, Salisb. (*DC. pr.* 1, *p.* 114.)

1. *ferox,* Salisb. (*DC. l. c.,—B. M.* 35, *t.* 1447.—Anneslea (not Wall.) spinosa, *Andr.*; *B. Repos.* 9, *t.* 618;—*Roxb. fl. ind.* 2, *p.* 573.) ♃. Luknow, Tippera, Chittagong, Saharunpore. Fl. small, bluish-purple. R. S., fr. C. S.—*Seeds* farinaceous, and, after having been heated in hot sand and husked, eaten by the Natives. (*Roxb.*)

NYMPHÆA, L. (*DC. pr.* 1, *p.* 114;—*W. and A. pr.* 1, *p.* 16.) *Water Lily.*

1. *pubescens,* Willd. (*DC. l. c. p.* 115;—*W. and A. l. c.—J. Grah. Cat. B. pl. p.* 6.—N. Lotus, *Burm.,—Roxb. fl. ind.* 2, *p.* 577,—not L.—*Rheed.* 11, *t.* 26. বড়শালূক *Buro-shaluk.* ♃. Africa. Both Peninsulas of India, Bengal, (Serampore), &c.; in short, like the other species, except N. rubra, found in every part of India, from 8° to 32° N. Lat. (*Royle.*) Fl. large, white, of a vinous smell,—R. and C. S.;—fr. H. S.

2. *rubra,* Roxb. (*Fl. ind.* 2, *p.* 576;—*DC. l. c.,—W. and A. l. c. p.* 17;—*J. Grah. Cat. B. pl. p.* 5;—*B. M.* 31, *t.* 1280;—*Wight. ill.* 1, *t.* 10.) বড়রক্তকম্বল *Buro-rukto-kumbul.* ♃. Both Peninsulas of India, Bengal, (Serampore). Fl. large, intensely red,—H. and R. S.,—fr. R. S.

   β. *rosea.* (*Roxb. l. c.,—B. M.* 33. *t.* 1364.) ছোটরক্তকম্বল *chhoto-rukto-kumbul.* ♃. Bengal, (Serampore.) Fl. large, rose-coloured,—H. and R. S.,—fr. R. S.

3. *versicolor,* Roxb. (*Fl. ind.* 2, *p.* 577;—*DC. l. c.,—B. M.* 29, *t.* 1189.) বড়শঁধি *Buro-sundhi.* ♃. Bengal, (Serampore), &c. Fl. large, rose-coloured, or bluish white,—H. and R. S.,—fr. R. S.

   β. *alba.* Bengal, (Serampore). Fl. white.

4. *edulis,* (*DC. pr. l. c.—N. esculenta, Roxb. fl. ind.* 2, *p.* 578.) ছোটশঁধি *Chhoto-sundhi.* ♃. Bengal, (Serampore), &c. Fl. large, white,—H. and R. S.,—fr. R. S. The *underground stems* (roots) especially of this, but also of the other species, are much sought after by the Natives, both as an article of food and medicine. The *capsules* and *seeds* are either pickled, or made up with their curries, or ground and mixed with flour to make cakes. (*Roxb.*)

5. *stellata*, Willd. (*DC. l. c.*,—*W. and A. pr.* 1, *p.* 17;—*Roxb. fl. ind.* 2, *p.* 579;—*J. Grah. Cat. B. pl. p.* 5;—*Wight. icon.* 1, *t.* 178.—*Rheede*, 11, *t.* 27.) ছোটনীলপদ্ম *Chhoto-neelpudmo*. ♃. Peninsula of India, Bengal, (Serampore), &c. Fl. smallish, blue,—H. and R. S.; fr. R. S.

β. *major* (N. cyanea, *Roxb. fl. ind.* 2, *p.* 577;—*B. M.* 46, *t.* 2058.) বড়নীলপদ্ম, *Buroneel-pudmo*. ♃. Bengal, (Serampore). Fl. largish, blue,—H. and R. S; fr. R. S.

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* *Barclaya oblonga*, Wall. ♃. Rangoon. *Victoria regia*, Lindl., B. Reg. 1838, app. p. 9—14. ♃. Guiana.—*Cabomba aquatica*, Aubl. ♃. Guiana.

ORDER IV.—NELUMBIACEÆ, Lindl. Nat. Syst. p. 13.

THE SACRED-BEAN TRIBE.

Herbaceous plants, with very large leaves and flowers, inhabiting stagnant and quiet waters in N. America, Jamaica, the Caspian region, India, and formerly in Egypt. The order comprehends but one genus with five species; three of which are insufficiently known. The remaining two belong to India and N. America.

NELUMBIUM, Juss. (*DC. pr.* 1, *p.* 113;—*W. and A. pr.* 1, *p.* 16.)

1. *speciosum*, Willd. (*DC. l. c.*,—*W. and A. l. c.*,—*Roxb. fl. ind.* 2, *p.* 647;—*J. Grah. Cat. B. pl. p.* 5.) ♃. All India, Persia, China, Cochin China, Japan. Fl. very large, nearly inodorous, H. and R. S.; fr. R. S. The *underground stems* are eaten by the Natives, boiled, or in their curries,—and the *seeds* raw, roasted, or boiled. The *leaves* are used as a substitute for plates. (*Roxb.*)—In China the roots are not only served up in summer with ice, but they are also laid up in salt and vinegar for the winter. (*Loud. enc. of pl. p.* 479.) Kent of Clapton, says, that the seeds will keep forty years, vegetate freely, and flower the first year. (*Hort. trans.* 3, *p.* 36.)

α. *rubrum*, (*B. M.* 23, *t.* 903.—*Rheede*, 11, *t.* 30.—*Rumph.* 6, *t.* 73.) রক্তপদ্ম, *Rukto-pudmo*. Fl. rose-coloured.

β. *album*. (*Wight. ill.* 1, *t.* 9.—*Rheede*, 11, *t.* 31.) শ্বেতপদ্ম, *Shwet-pudmo*. Fl. white.

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* *N. luteum*, Willd. ♃. N. America.

ORDER V.—MYRISTICACEÆ, Lindl. Nat. Syst. p. 15.

THE NUTMEG TRIBE.

Trees often yielding a red juice, (*R. Br.*) and arranged under three genera, Myristica, L., Virola, Aubl., and Knema, Lour. According to our materials, these contain 48 species, of which 29 are described, and 19 only named. *Myristica* numbers 46 species; 27 inhabiting the Moluccas, Cochin-China, Java, Ceylon, and the ultra-gangetic Peninsula of India; 4, the intra-gangetic Peninsula of India; 3, S. America; 2, Madagascar; 1, Aleppo; 1, Mauritius; 2, Chittagong; 2, the Khassya Mountains; and 2 New Holland. *Virola* and *Knema* have each but one species, the first a native of Guiana, the second found in Penang.

As to the properties of this order, all that can be said is this: 'The bark (of the well known species) abounds in an acrid juice, which is viscid and stains red; the rind of the fruit is caustic; the aril and albumen, the former known under the name of Mace, and the latter of Nutmeg, are important aromatics, abounding in a fixed oil of a consistence analogous to fat, which, in a species called Virola sebifera, Aubl. is so copious as to be extracted easily by immersing the seeds in hot water. The common Nutmeg is the produce of Myristica moschata, but an aromatic fruit is also borne by other species. The Nutmeg of Santa Fé is the Myristica Otoba, Humb.' (*Lindl.*)

MYRISTICA, L. (*Spreng. syst.* 3, *p.* 6, *No.* 2382;—*R. Br. pr. p.* 399 *and* 400.)

1. *moschata*, Thunb. (*Spreng. o. c. p.* 64;—*Roxb. fl. ind.* 3, *p.* 843;—*J. Grah. Cat. B. pl. p.* 175.—M. officinalis, *L., Gärtn. fr.* 1, *p.* 194, *t.* 41, *f.* 1. *Hook. exot. fl. t.* 155-6;—*B. M.* 54, *t.* 2756-57.—M. aromatica, *Lam.*,—*Roxb. Corom.* 3, *t.* 267.—Nux Myristica, *Rumph.* 2, *t.* 4.) *True Nutmeg Tree.*—ƀ. 25 feet.—Moluccas. Successfully cultivated in Sumatra, Bencoolen, and Penang. Fl. small, pale yellow, inodorous. In H. C. G. some old trees, introduced in 1797, fl. R. S.; fr. H. and R. S. (*Roxb.*)—Mace.—জৈত্রী, *Jytree.*—Albumen (Nutmeg) জায়ফল, *Juyphul.* The nut contains a volatile, as well as a fixed oil.
2. *tomentosa*, Thunb. (*Spreng. o. c. p.* 65;—*J. Grah. Cat. B. pl. p.* 175.—*Rheede*, 4, *t.* 5.)—*M. malabarica*, Lam. ƀ. Moluccas, Malabar, S. Concan. Fl. small, yellowish. In H. C. G. Fl.?
3. *peltata*, Roxb. (*Fl. ind.* 3, *p.* 846.) ƀ. Mountains of the Moluccas. Introduced into H. C. G. in 1798, and the ♂ there fl. H. S. (*Roxb.*)
4. *spicata*, Roxb. (*Fl. ind.* 3, *p.* 847.) ƀ. Moluccas. Introduced into H. C. G. in 1798. In 1804, the ♀ fl. R. S., but proved abortive. No part of the tree possesses any fragrance. (*Roxb.*)

5. *parviflora*. Roxb. (*l. c.*) ♄ Moluccas. Introduced into H. C. G., where ♀ fl. R. S, but the fl. proved abortive. (*Roxb.*)

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* *Myristica fatua*, Swz. ♄. Guiana, W. Indies, Surinam. *M. Otoba*, Humb. ♄. New Granada. *M. Horsfieldii*, Spreng. ♄. Ceylon, Java. *M. amygdalina*, Wall. pl. as. rar. 1, t. 90. ♄. Moulmein. *M. sphærocarpa*, Wall. pl. as. rar. 1, t. 89. ♄. Martaban. *M. sylvestris*, Telf. ♄. Mauritius.—*Virola sebifera*, Aubl. ♄. Guiana.—*Knema glaucescens*, Jack. ♄. Penang.

ORDER VI.—MAGNOLIACEÆ, DC.—Lindl. Nat. Syst. p. 16.

THE MAGNOLIA TRIBE.

Fine trees or shrubs, with large, beautiful, often strongly odoriferous flowers. Their number amounts to 47 species, of which 9 belong to N. America; 1 to Mexico; 29 to the E. Indies; and 8 to Cochin-China, China, and Japan. R. Brown remarks, "that no species have been found on the continent of Africa, or any of the adjoining islands." (*Lindl.*) Of the 8 Asiatic species of Magnolia, enumerated by DC., in the section Gwillimia, Röttl., 2 have been removed to Michelia, and 1 to Talauma. Three other Magnolias, (M. conspicua, Salisb., obovata, Thunb., gracilis, Salisb.), though with introrse anthers, cannot be joined to Michelia, Bl. having terminal flowers, and their fruit, besides, being unknown. The 2 remaining species (M.? Coco and ? inodora, DC.) are only known from Loureiro's very deficient descriptions. The Indian species are ranged under five *genera*,—*Michelia*, L.; *Manglietia*, Bl.; *Aromadendron*, Bl.; *Sphenocarpus*, Wall. Cat.; and *Talauma*, Juss. The first of these numbers 22 forms, or, if Wallich's Magnolia punduana, be no Michelia, only 21; viz. 7 from Nepal; 5 from Java; 3 from Ceylon; 2 from the Khassya Mountains; 1 from the Neelgherries; 1 from the Pulney Mountains; 1 from Malabar; 1 from Pegu; 1 from Amboyna; and 1 from Chilmori. Manglietia has 3 species; one from Nepal, and two from Java; Aromadendron and Sphenocarpus each 1 species, the first Javanese, the latter Khassyan; and Talauma, 2 Javanese—Molucca forms. Blume is of opinion, that Magnoliaceæ are absolutely known from Dilleniaceæ by their bitter and aromatic properties. Their fragrant flowers act decidedly on the nerves, some of them producing sickness, headache, and paroxysms of fever. The bark of the root of Magnolia glauca is an important tonic. (*Bart.*)

Michelia, L. Bl. (*Wight ill. p. 11, from Bl.*)

1. *Doltsopa*, Buch. (*DC. pr. 1, p. 79;—Wall. tent. fl. nep. p. 7, t. 3;—Wight. ill. 1, p. 13.*) ♄. Forests of Nepal. In H. C. G. Fl.? Wood fragrant, excellent, used in Nepaul for house-building. (*D. Don. pr. fl. nep. p. 226.*) Another Nepalese species, M. excelsa,

Bl. (Magnolia excelsa, Wall.) yields valuable timber, of a fine texture; at first greenish, but soon changing into pale yellow. *Wall. tent. fl. nep.*)

2. *Champaca*, L. (*Wight. ill.* 1, *p.* 13;—*Bl.*,—*DC. pr.* 1, *p.* 79, *partly*;—*Roxb. fl. ind.* 2, *p.* 656.) চাঁপা *Champa.* ♄. Moluccas, Java. Cultivated in Bengal, (Calcutta, Serampore, &c.) Fl. large, deep yellow, intensely fragrant,—H. and R. S.; fr. C. S. Indeed, it fl. and fr. nearly throughout the year.—*Flowers* highly esteemed by the Natives, especially for the use they make of them in their religious ceremonies.

3. *Kisopa*, Buch. (*DC. l. c.*,—*Wall. tent. fl. nep. p.* 8. *t.* 4.,—*Wight, l. c.*) ♄ Forests of Nepal. In H. C. G. Fl.?

4. *aurantiaca*, Wall. (*Pl. as. rar.* 2, *t.* 147.) L. ♄. Pegu. Fl. large, orange-coloured, fragrant,—C. S.; fr. June and July.

5. *fuscata*, Bl. (*Wight. ill.* 1, *p.* 11.—Magnolia fuscata, *Andr. B. Repos.* 4, *t.* 229;—*B. M.* 25, *t.* 1008;—*DC. pr.* 1. *p.* 81;—*Roxb. fl. ind.* 2, *p.* 655.) ♄. China. Fl. largish, cream-coloured, purple-edged, fragrant,—March and April; fr. 0

6. *oblonga*, Wall. Cat. ♄. Khassya Mountains. In H. C. G. Fl.?

Magnolia, L. (*DC. pr.* 1, *p.* 79.)

? 1. *obovata*, Thunb. (*DC. o. c. p.* 81.)

β *discolor*, DC. (*l. c.*—M. discolor, *Vent.*—M. purpurea, *Curt.*, *B. M.* 11. *t.* 390. M. obovata, *Roxb. fl. ind.* 2, *p.* 655.) ♄. Japan, China. Fl. large, dark, purple, rose-coloured, inodorous,—R. S.; fr. 0. (*Roxb.*)

? 2. *conspicua*, Salisb. (*Par. t.* 38.—*B. M.* 39, *t.* 1621.—M. Yulan, *DC. pr.* 1, *p.* 81.) ♄ China. Introduced in 1840.

Sphenocarpus, Wall. Cat. Sine charactere! (*Lindl. Nat. Syst. p.* 16.)

1. *grandiflorus*, Wall. Cat. (Liriodendron grandiflorum, *Roxb. fl. ind.* 2, *p.* 653. L. indicum, *Spreng. syst.* 2, *p.* 642. Magnolia pterocarpa, *Roxb. Corom.* 3, *t.* 266.) দুলীচাঁপা, *Doolee-champa.* ♄. Chittagong, Sylhet. Fl. large, white, fragrant,—April and May; fr. C. S.

What may be *Liriodendron Lilifera*, *Roxb.* (*Fl. ind.* 2, *p.* 654.) ঔবাচাঁপা, *Ouva-champa*, a large tree from the Khassya Mountains, introduced into H. C. G. before 1814, is not easy to say. It is mentioned neither in Wall. Cat., nor in Royl. Ill., and to Mr. Griffith, who is familiar with Bhootan, Assam, and the Khassya Mountains, it is entirely unknown.

Talauma, Juss. (*G. Don's Mill. dict.* 1, *p.* 85.)

1. *pumila*, Bl. (*G. Don., l. c.*—Magnolia pumila, *Andr. B. Repos.* 3, *t.* 227;—*B. M.* 25, *t.* 977;—*DC. pr.* 1, *p.* 81,; *Roxb. fl. ind.* 2, *p.* 655;—not Spreng.) ♄ China, Mountains of Amboyna and Java. Fl. largish, white, fragrant,—nearly throughout the year; fr. 0.

Liriodendron, L. (*DC. pr.* 1, *p.* 82.)

1. *tulipifera*, L. (*DC. l. c.*,—*B. M.* 8, *t.* 275.) *Tulip Tree.* ♄. N. America. Introduced in 1840.

* *Michelia Rheedii*, Wight.,—Rheede, 1, t. 19. ♄. Malabar, Pulney Mountains, Shavagery Hills. *M. Walkeri*, Wight. 5. Ceylon. *M. ovalifolia*, Wight. 5. Ceylon. *M. glauca*, Wight. 5. Ceylon. *M. nilagirica*, Zenker, Neelgherries. *M. pulneyensis*, Wight. ill. t. 5. L. ♄. Pulney Mountains. *M. lanuginosa*, Wall. ♄ Nepal. *M. lactea*, Buch. Chilmori. *M. macrophylla*, Don, Nepal.—*Manglietia insignis*, Arn. (Magnolia insignis, Wall. pl. as. rar. 2, t. 182.) ♄. Nepal.—*Aromadendron elegans*, Bl. ♄. Java.—*Talauma Rumphii*, Bl. ♄. Moluccas. *T. Candollii*, Bl.,—B. Reg. 20, t. 1709. ♄. Java.

ORDER VII.—WINTERACEÆ, Lindl. Nat. Syst. p. 17.

THE WINTER'S BARK TRIBE.

Shrubs or small trees, containing, under four genera, twelve species; viz. 2, inhabiting New Holland; 2, Chili; 2, Florida; 1, the vallies about the Magellan Straits; 1, New Granada; 1, Mexico; 1, Japan and China; 1, found by Mr. Griffith, on the Khassya Mountains; and 1, New Zealand.

The general properties of this order are stimulant and aromatic. The well-known Star Anise is the fruit of Illicium anisatum, L. Winter's Bark, the product of Drimys Winteri, Forst., and formerly much used in medicine, is now nearly neglected.

ILLICIUM, L. (*DC.*) *pr.* 1, *p.* 77.)

1. *floridanum*, Ell. (*DC. l. c.*,—*B. M.* 13, *t.* 439.) ♄ E. Florida. Introduced into H. C. G. Fl.?

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* *Illicium anisatum*, L. ♄. China, Japan. *I. parviflorum*, Michx. ♄ E. Florida.—*Drimys mexicana*, Moç and Sessé. Mexico.

ORDER VIII.—ANONACEÆ, Rich. Lindl. Nat. Syst. p. 18.

THE CUSTARD-APPLE TRIBE.

With few exceptions, a tropical order, chiefly inhabiting America and the East Indies, and comprehending upwards of 200 species. Nine of these have been found in tropical Africa; 1 in Egypt; 3 in Madagascar and Mauritius; 6 in China and Japan; 1 in New Caledonia; 1 in New Holland; 5 in Carolina and Florida;—and about 95 in the East Indies. Of the latter, there are 42 species of *Uvaria*; 23 of *Unona*; 17 of *Guatteria*; 5 of *Artabotrys*; 2 of *Orophea*; 1 of *Polyalthia*; 1 of *Miliusia*; 1 of *Hyalostemma*; 1 of *Lobocarpus*; 2 of *Pattonia*; and 1 of *Saccopetalum*.

All trees or shrubs, the roots, bark, leaves, and especially capsular fruits of which are distinguished by their powerful aromatic taste and smell.

The fleshy fruits are edible, and much esteemed in the tropics. (*DC.*)—Blume remarks, that the Javanese species require, owing to their powerful properties, to be employed with caution; for if they are administered for too great a length of time, or in too large doses, they produce vertigo, hœmorrhage, or even abortion. (*Lindl.*)

ANONA, L. (*DC. pr.* 1. *p.* 83;—*W. and A. pr.* 1, *p.* 7.)

1. *squamosa*, L. (*DC. o. c. p.* 85;—*W. and A. l. c.*,—*Roxb. fl. ind.* 2, *p.* 657;—*B. M.* 58, *t.* 3095;—*J. Grah. Cat. B. pl. p.* 2.—*Rheed.* 3. *t.* 29.—*Rumph.* 1, *t.* 46.) আতা *Ata. Custard-Apple.* 5. No doubt a native of tropical America, notwithstanding St. Hilaire's reasonings, which would make it of Asiatic origin. No Anona has, on any good authority, been found wild in Asia, and it is, perhaps, questionable, whether A. senegalensis, grandiflora and amplexicaulis, are true natives of Senegal and Madagascar.—Completely domesticated in India. Fl. largish, yellowish green,—H. S.; fr. July—October.—*Fruit* delicious. *Leaves* with a heavy smell. *Seeds* acrid, fatal to insects, and therefore by the Natives powdered, mixed with *gram* flour, and thus occasionally used for washing their hair. (*Royle.*) The fruit has, on some occasions of famine, literally proved to the Natives the staff of life. (*Grah. l. c.*)
2. *reticulata*, L. (*DC. pr.* 1, *p.* 85;—*W. and A. pr.* 1, *p.* 7;—*Roxb. fl. ind.* 2. *p.* 657;—*B. M.* 56, *t.* 2911-12:—*J. Grah. Cat. B. pl. p.* 3.—*Rheede*, 3, *t.* 30, 31.) নোনা, *Nona. Bullock's Heart.* 5 W. Indies.—Domesticated in India. Fl. largish, yellowish-green, of a vinous smell,—H. S.; fr. July—November.
3. *muricata*, L. (*DC. pr.* 1, *p.* 84;—*Roxb. H. B. p.* 43;—*J. Grah. Cat. B. pl. p.* 3.) *Sour Sop.* 5 W. Indies. Cultivated in India. Fl. large, yellowish-green, of a vinous smell,—September; fr. H. S.
4. *Cherimolia*, Mill. (*DC. l. c.*,—*B. M.* 45, *t.* 2011,—*J. Grah. Cat. B. pl. p.* 3.) 5 Peru, New Granada. Introduced in 1820. Has not fl. here.—Its dark purple fruit is much esteemed in S. America.

? 5. *Suriffa*, Roxb. (*H. B. p.* 43.) ♄. Sylhet.—Introduced into H. C. G. in 1794, where it fl. Feb.—April. (*Roxb.*)—What this species may be, we cannot determine, never having seen it. It is not mentioned in Wall. Cat., and to Mr. Griffith it is unknown. Royle Ill. p. 60, gives Shurifa as the Persian name for Anona squamosa, L., with which, however, Roxb. could not have confounded his A. Suriffa.

UVARIA, L. (*DC. pr.* 1, *p.* 88;—*W. and A. pr.* 1, *p.* 7.)

1. *odorata*, Lam. (*W. and A. o. c. p.* 8;—*Roxb. fl. ind.* 2, *p.* 661.—Unona odorata, *Dun.*—*DC. o. c. p.* 90—*Rumph.* 2, *t.* 65.) 5 China, Sunda Islands, Martaban, Moluccas. Fl. large, yellowish-green, fragrant, nearly throughout the year; fr. C. S.
2. *grandiflora*, Roxb. (*Fl. ind.* 2, *p.* 665;—*W. and A. pr.* 1, *p.* 9;—*Wall. pl. as. rar.* 2, *t.* 121.—U. purpurea, *Bl.*;—*Wall. rept.*—Unona grandiflora, *Leschen*;—*DC. pr.* 1, *p.* 90.) ♄ Sumatra. Fl.

large, crimson, changing to dark purple,—June and July; fr. C. S.

3. *macrophylla*, Roxb. (*Fl. ind.* 2, *p.* 663;—*Wall. pl. as. rar.* 2, *t.* 122.) ♄ Silhet, Chittagong. Fl. large, dull reddish,—July and Aug.; fr. 0.
4. *bicolor*, Roxb. (*Fl. ind.* 2, *p.* 662.) ♄ ◡ Silhet. Introduced in 1826. Fl. largish, brown red,—April; fr. R. S. (*Roxb.*)
5. *ventricosa*, Roxb. (*Fl. ind.* 2, *p.* 658.) ♄. Tippera. Fl. greenish-white, fragrant,—March; fr. July.
6. *bracteata*, Roxb. (*Fl. ind.* 2, *p.* 660.) ♄. ◡ Sylhet. Fl. small, pale yellowish-white. Introduced into H. C. G. in 1811. Fl. April and May; fr. Aug. and Sept. (*Roxb.*)
7. *tripetala*, Roxb. (*Fl. ind.* 2. *p.* 667,—not Lam.;—Unona tripetala, DC.) ♄. Moluccas. Fl. largish, greenish-yellow, inodorous,—March, April, and May; fr. 0.
8. *elongata*, Roxb. (*H. B. p.* 43.) ♄ ◡ Chittagong. Introduced into H. C. G. in 1806, and there fl. R. S. (*Roxb.*)
9. *heteroclita*, Roxb. (*Fl. ind.* 2, *p.* 663.) ♄ ◡ Garrow Hills. Introduced into H. C. G. in 1812. Fl. June and July; fr. Oct. and Nov. (*Roxb.*)

Unona, L. (*DC. pr.* 1, *p.* 88; *W. and A. pr.* 1, *p.* 9.)

1. *discolor*, Vahl. (*DC. o. c. p.* 91;—*W. and A. l. c.*,—*Roxb. fl. ind.* 2, *p.* 669;—*J. Grah. Cat. B. pl. p.* 3.—Uvaria monilifera, *Gärtn. fr.* 2, *p.* 156, *t.* 114, *f.* 2.) ♄ Circars, Chittagong, Penang, Tavoy. Fl. large, yellowish. Introduced in 1840.—*Wood* chiefly used for rafters. (*Roxb.*)
2. *longiflora*, Roxb. (*Fl. ind.* 2, *p.* 668.) ♄ Silhet. Fl. large, yellow, orange,—April and May; fr. 0.
3. *undulata*, Wall. (*Pl. as. rar.* 3, *t.* 295.—Uvaria undulata, *Roxb. H. B. p.* 43,—not Dun.) ♄ Silhet, Chittagong. Fl. very large, greenish-yellowish, fragrant,—H. S.; fr. Nov.
4. *dumosa*, Roxb. (*Fl. ind.* 2, *p.* 670.) ♄ ◡ Silhet. Fl. large.—In H. C. G.,—fl. April and May; fr. Sept. and Oct. (*Roxb.*)
5. *Dasymaschala*, Bl. (*Wall. Cat.*) ♄ Singapore. In H. C. G. Fl. June; fr. —
6. *lævigata*, Wall. (*Rept.*) ♄ Native place? Introduced in 1840.
7. *penduliflora*, Moç. and Sessé. (*DC. pr.* 1, *p.* 89.) ♄ Mexico.—Introduced in 1840.

Artabotrys, R. Br. (*B. Reg.* 5, *t.* 423;—*W. and A. pr.* 1, *p.* 9.)

1. *odoratissimus*, R. Br. (*B. Reg. l. c.*,—*W. and A. o. c. p.* 10;—*J. Grah. Cat. B. pl. p.* 4.—Uvaria odoratissima, *Roxb. fl. ind.* 2, *p.* 666. —U. uncata, *Lour. Roxb. l. c. excl. No.* 15.—Unona esculenta and uncinata, *DC. pr.* 1, *p.* 90—*Rheede*, 7, *t.* 46.) ♄ ◡ China, Cochin-China, both Peninsulas of India, Bengal, (Serampore), &c. Fl. large, greenish-yellow, fragrant,—H. and R. S.; fr. C. S.

2. *densiflorus*, Wall. (*Rept.*) ♄ ⌣ Native place? Introduced in 1840.

GUATTERIA, Ruiz. and Pav. (*DC. pr.* 1, *p.* 93;—*W. and A. pr.* 1, *p.* 10.)

1. *longifolia*, Wall. (*W. and A. l. c.*,—*J. Grah. Cat. B. pl. p.* 4;—*Wight ic.* 1, *t.* 1.—Uvaria longifolia, *Lam.*;—*Roxb. fl. ind.* 2, *p.* 664, —not Bl.—Unona longifolia, *Dun.*;—*DC. pr.* 1, *p.* 90.) দেবদারী *Debdaree.—Mast-tree.* L. ♄. Java, Tanjore, Patna. Commonly cultivated about Calcutta and Serampore. Fl. small, green,—Feb. and March; fr. R. S.—*Wood* soft and useless. (*Roxb.*)
2. *cerasoïdes*, Dun. (*DC. pr.* 1, *p.* 93;—*W. and A. pr.* 1, *p.* 10;—*J. Grah. Cat, B. pl. p.* 4.—Uvaria cerasoïdes, *Roxb. Corom.* 1, *t.* 33;—*fl. ind.* 2, *p.* 666.) L. ♄. Circars, Bombay Presidency, Tull Ghaut, Jowar Forests, Monghyr. Fl. small,—April; fr. —
3. *suberosa*, Dun. (*DC. l. c.*,—*W. and A. l. c.*,—*J. Grah. l. c.*—Uvaria suberosa, *Roxb. fl. ind.* 2, *p.* 667.) বড়চালি, *Buro-chali.* ♄. Peninsula of India. Mountains of Khassya, Monghir and Morung. Bengal, (Serampore). Fl. small, greenish-white,—throughout the year; fr. C. S.
4. *villosa*, (G. velutina, *Alph. DC.*—Uvaria velutina, *Dun. anon.* 1817. —Uvaria villosa, *Roxb. H. B. p.* 43; (1814,) *fl. ind.* 2, *p.* 664.) L. ♄. Monghyr Mountains. Introduced into H. C. G. in 1796, and there fl. March and April; fr. July and Aug.
5. *sesquipedalis*, Colebr. (*Wall. pl. as. rar.* 3, *t.* 266.) ♄. Khassya Mountains. Fl. middle-sized, dull yellowish. Introduced here in 1827. Fl. H. S., but rare.
6. *Badajamba*, Wall. (*Rept.*—Uvaria Badajamba, *Roxb. H. B. p.* 43.) ♄. Chittagong.—Fl. in June and July, in H. C. G., where it was introduced in 1810.
7. *fasciculata*, Wall. (*Rept.*) Introduced here in 1827. Native place? —Fl. and fr.

HYALOSTEMMA, Wall. (*Cat.* Sine charactere!—*Lindl. Nat. Syst. p.* 439, *No.* 2.)

1. *Roxburghianum*, Wall. (*L. c.*—Uvaria dioeca, *Roxb. fl. ind.* 2, *p.* 659.) ♄ Khassya Mountains, Singapore. Has been introduced into H. C. G. Fl. and fr.—Introduced here in 1840.

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* *Anona purpurea*, Moç. and Sessé. ♄. Mexico. *A. laurifolia*, Dun., B. Reg. 16, t. 1328. ♄ W. Indies. *A. longifolia*, Aubl. 5 Guiana. *A. palustris*, L. 5 Jamaica. *A. punctata*, Aubl. ♄. Guiana. *A. paludosa*, Aubl. ♄ Guiana. *A. obtusifolia*, Tuss. ♄. W. Indies.—*Lobocarpus Candollianus*, W. and A. Peninsula of India—*Pattonia Walkeri*, Wight. Ceylon.—*Monodora Myristica*, Dun., B.M. 58, t. 3059. (American Nutmeg.) Equatorial Africa. Cultivated in Jamaica.—*Uvaria narum*, W. and A.; Wight ill. 1, t. 5. Peninsula of India.—*Arta-*

botrys suaveolens, Bl. Penang.—*Orophea polycarpa*, Alph. DC. Banks of the Saluen river,—*Polyalthia fruticans*, Alph. DC. Tavoy. *Guatteria anonæfolia*. Alph. DC. Tavoy. *G. cinnamomea*, Alph. DC. Singapore.

SCHIZANDREÆ, Bl.—Lindl. Nat. Syst. p. 19.

With one exception, (Villarezia,) trailing shrubs, containing 4 genera; viz. *Kadsura*, Juss.; *Sphærostema*, Bl.; *Schizandra*, Michx.; and *Villarezia*, Ruiz and Pav. The first genus, with one species, is a Native of Japan and the Khassya Mountains; the second, with four forms, inhabits Java and Nepal. The third and fourth, each with only one species, belong to N. America and Chili.—*Leaves* aromatic. (*Lindl. B. Reg.*, not Nat. Syst. l. c. in which it is said, that Schizandreæ have no aromatic or bitter properties.)

KADSURA, *Juss.* (*DC. pr.* 1, *p.* 83.—Sarcocarpon, *Bl.*)

1. *japonica*, Dun. (*DC. l. c.—Kämpf. amoen. t.* 477;—Uvaria japonica, *L.*) ♄ ⌒ Japan, Khassya Mountains, Nepal.—Introduced in 1827, but has not fl. here.

SPHÆROSTEMA, Bl. (*B. Reg.* 20, *t.* 1688.)

1. *propinquum*, Bl. (*B. Reg. l. c.*—Kadsura propinqua, *Wall. tent. fl. nep. p.* 11, *t.* 15.) ♄ ⌒ Nepal. Has been introduced into H. C. G. Fl. ?
2. *grandiflorum*, Bl. (Kadsura grandiflora, *Wall. tent. fl. nep. t.* 14.) ♄ ⌒ Nepal.—Has been introduced into H. C. G.—Fl. ?

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* *Sphærostema axillare*, Bl. Java. *S. elongatum*, Bl. Java.—*Schizandra coccinea*, Michx.; B. M. 34, t. 1413. ♄ ⌒ Carolina, Georgia.

ORDER IX.—DILLENIACEÆ, DC.—Lindl. Nat. Syst. p. 20.

Handsome trees, shrubs, or undershrubs, rarely herbs, amounting to about 115 species, of which 47 belong to New Holland and Van Diemen's Land; 42 to the E. Indies; about 30 to S. America; 3 to Madagascar; 2 to Guinea; and 1 to New Caledonia.—The Indian forms are ranged under nine genera; viz. 12 under *Tetracera*; 5-6 under *Delima*; 3 under *Wormia*; 1 under *Actinidia*; 4 under *Colbertia*; 11 under *Dillenia*; 1 under *Capellia*; 3 under *Acrotrema*; and 1 under *Schumacheria*.—With a few exceptions, the properties of the order are unknown.

TETRACERA, L. (*DC. pr.* 1, *p.* 67;—*W. and A. pr.* 1, *p.* 20.)

1. *Rheedii*, DC. (*o. c. p.* 68;—*W. and A. l. c.*,—*J. Grah. Cat. B. pl. p.* 1;—*Wight ic.* 1, *t.* 70;—*Rheed.* 5, *t.* 8.) ♄ ⌒ Travancore, S. Concan. Fl. middle-sized, white, fragrant. Introduced into H. C. G.—Fl. ?

DELIMA, L. (*DC. pr.* 1, *p.* 69.)

1. *hebecarpa*, DC. (*o. c. p.* 70; *Delessert, ic. sel.* 1. *t.* 72.—Tetracera sarmentosa, *Roxb. fl. ind.* 2, *p.* 645;—not L. ♄ ⌒ Java, Penang. Introduced here in 1840. Has not fl.
2. *odorata*, Wall. (*Rept.*) ♄ ⌒ Native place? Introduced here in 1840. Fl.?

DILLENIA, L. (*DC. pr.* 1, *p.* 75;—*W. and A. pr.* 1, *p.* 5.)

1. *speciosa*, Thunb. (*DC. o. c. p.* 76;—*W. and A. l. c.*,—*Roxb. fl. ind.* 2, *p.* 650;—*J. Grah. Cat. B. pl. p.* 2;—D. indica, *L.*—*Rheed.* 3, *t.* 38, 39.—*Rumph.* 2. *t.* 45.) চালিতা, *Chalita.* L. ♄. Moluccas, Java, Ceylon, Peninsula of India, Bengal, Chittagong, Assam. Cultivated about Serampore. Fl. very large, white, fragrant, July; fr. Feb.—*Wood* hard, tough, used to make gun-stocks. (*Roxb.*) *Leaflets of the calyx* agreeably acid; by the Natives eaten either raw or in curries, or used to make a sort of lemonade. *Leaves* hard, rough; and, like those of the other species, employed for polishing.
2. *scabrella*, Roxb. (*Fl. ind.* 2, *p.* 653;—*Wall. pl. as. rar.* 1, *t.* 22.) L. ♄. Chittagong. Fl. an inch, gold-coloured, sweet-scented, January; fr.—*Calyx-leaflets* used at Chittagong, like those of *No.* 1. (*Wall.*) *Timber* good.
3. *pentagyna*, Roxb. (*Corom.* 1, *t.* 20; *fl. ind.* 2, *p.* 652; *W. and A. pr.* 1, *p.* 5;—*J. Grah. Cat. B. pl. p.* 2.—Colbertia coromandeliana, *DC.*, *pr.* 1, *p.* 75.) L. ♄. Coromandel. Banks of the Gutpurba, South Mahratta Country. Assam. Fl. 9 lines, gold-coloured, sweetish-scented, March and April; fr. Dec.—*Wood* close-grained, used for canoes in Assam. (*Robinson.*) *Leaves* much employed, at Poona, as a substratum for chuppered-roofs, and sold in the bazar. (*J. Grah.*)
4. *augusta*, Roxb. (*Fl. ind.* 2, *p.* 652.) L. ♄. Garrow Hills. Introduced into H. C. G. in 1810. Fl.?
5. *pilosa*, Roxb. (*Fl. ind.* 2, *p.* 652.) L. ♄. Assam near Goalpara, on the banks of the Megna. Introduced into H. C. G. in 1810.—Fl.? *Wood* hard, tough, much used for canoes. (*Robinson.*)

WORMIA, Rottb. (*DC. pr.* 1. *p.* 75.)

1. *dentata*, DC. (*L. c.*) ♄. Ceylon. Introduced in 1840.

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* *Doliocarpus Calinea*, Gm. ♄ ⌒ Guiana.—*Curatella americana*, L. 5. S. America. *C. alata*, Vent. 5 Guiana.—*Tetracera malabarica*, Lam. Penang. *T. volubilis* L. ♄ ⌒ Barbadoes. *T. jamaicensis*, DC. 5 Jamaica.—*Davilla brasiliana*, DC. 5 Brazil.—*Delima sarmentosa*, L; B. M. 58, t. 3058. ♄ ⌒ Silhet. *D. guianensis*, Rich. ♄ ⌒ Guiana.—*Pleurandra bracteata*, R. Br. ♄ Port Jackson. *P. nitida*, R. Br. ♄ P. Jackson. *P. stricta*, R. Br. ♄ Port Jackson.—*Adrastæa salicifolia*, DC. ♄ Botany Bay.—*Hibbertia volubilis*, Andr. (Dillenia speciosa, B. M. 13, t. 449,—not Thunb.) ♄ ⌒ Port Jackson, *H virgata*, R. Br. ♄ Port Jackson. *H. pedunculata*, R. Br. B. Reg. 12, t.

1001. ♄ Port Jackson.—*Wormia madagascariensis*, DC. 5 Madagascar.—*Dillenia ornata*, Wall. pl. as. rar. 1, t. 23. ♄ Banks of the Attaran.—*Acrotrema costatum*, Jack. ♃. Penang. *A. Arnottianum*, Wight. ill. 1, t. 3. ♃. Malabar; wet ditches.—*Schumacheria castaneifolia*, Vahl.; Wight. ill. 1, t. 4. ♄ ◡ Ceylon.

ORDER X.—APIACEÆ, Lindl. Nat. Syst. p. 21.

(Umbelliferæ, Juss.)

THE CELERY TRIBE.

Herbaceous, rarely shrubby, plants, "natives chiefly of the northern hemisphere, inhabiting groves, thickets, plains, marshes, and waste places. They appear to be extremely rare in all tropical countries, except at considerable elevations, where they gradually increase in number as the other parts of vegetation acquire an extra-tropical, or mountain character. Hence, although they are hardly known in the plains of India, they abound on the mountains of the Himalaya." (*Lindl.*) According to DC. pr. they amounted, in 1830, to about 1000 species, of which 360 inhabit Europe; 136, S. America; 113, Caucasus and the Levant; 71, N. America; 59, S. Africa; 49, N. Africa; 38, New Holland; 31, Siberia; 11, Java; 7, New Zealand; 6, the Canaries; 6, China and Japan; 4, the Mascarenhas Islands; 3, Van Diemen's Land; 2, Tristan da Cunha; 1, St. Helena; and 1 Arabia. Twenty were common to several countries, and 18 unknown as to their native place.—The Indian species, enumerated by DC. l. c., amounted to about 74, but have now, as far as we can calculate, risen to 105; viz. 6—8 of *Hydrocotyle*; 1 of *Sanicula*; 4 of *Helosciadium*; 2 of *Laserpitium*; 5 of *Ptychotis*; 1 of *Falcaria*; 3 of *Sison*; 2 of *Ammi?* 2 *of Carum*; 3 of *Pimpinella*; 1 of *Sium*; 11 of *Bupleurum*; 2 of *Oenanthe*; 3 of *Dasyloma*; 1 of *Fæniculum*; 1 of *Eriocycla*; 1 of *Seseli*; 1 of *Cnidium*; 1 of *Trachydium*; 2 of *Hymenidium*; 3 of *Athamanta*; 3 of *Ligusticum*; 5 of *Selinum?* 1 of *Archangelica*; 1 of *Palimbia*; 3 of *Peucedanum*; 1 of *Anethum*; 1 of *Cortia*; 2 of *Pastinaca*; 8 of *Heracleum*; 1 of *Tordyliopsis*; 1 of *Torilis*; 4 of *Chærophyllum*; 1 of *Pycnocycla*; 1 of *Osmorrhiza*; 1 of *Ozodia*; 1 of *Prangos*; 1 of *Vicatia*; 1 of *Pleurospermum*; and 9 of *Hymenolæna*. Royle (*Ill. p.* 228,) says that the whole number is 127 species for the Indian Flora, of which eleven are found in the plains and at the foot of the hills, seven only in a cultivated state, and the remainder in the mountains, with the exception of a few in the Peninsula; but if we deduct from his herbarium those forms it has in common with Wallich's Cat. and some European species, our estimati on is, we suppose, pretty correct. The S. African Apiaceæ having since 1830 increased to 120 species, (*Harvey's gen. of S.*

African pl. 1838,) a similar augmentation has no doubt taken place, from later discoveries, in other parts of the world.

Though, according to structure, this is one of the most natural orders, yet we find its properties very different. Some species abound in resina containing a large quantity of an essential aromatic oil, and, therefore, act more or less as aromatics and stimulants, f. ex. the fruits of Pimpinella Anisum, (Anise,) P. magna, P. Saxifraga, Carum Carvi, (Caraway,) Anethum graveolens, (Dill,) Fæniculum vulgare, (Fennel,) F. Panmori, Cuminum Cyminum, (Cumin,) Coriandrum sativum, (Coriander,) &c. The leaves of Petroselinum sativum, (Parsley,) Apium graveolens, (Celery,) Anthriscus Cerefolium, (Chervil,) &c ; the roots of Celery, Meum athamanticum, Pastinaca sativa, (Parsnip,) Archangelica officinalis, (Garden Angelica,) Imperatoria Ostruthium, (Masterwort,) Crithmum maritimum, (Samphire,) Levisticum officinale, Sium Sisarum, &c.—as well as the root of Daucus Carota, (Carrot,) Arracacha esculenta, Oenanthe pimpinelloïdes, Carum Bulbocastanum, Chærophyllum tuberosum, Eryngium campestre and aquaticum, &c. are especially, when cultivated, wholesome articles of food, while the leaves of Prangos pabularis yield abundant fodder for cattle.

Other umbelliferæ, in which the abounding essential oil and mucilage change, the former to resin, the latter to gum, yield from wounds in the stem, or from the top of the root, dense juices well known under the name of fetid gum-resins, and some of them medicinally invaluable, f. ex. Galbanum officinale, D. Don ; Opoponax Chironium, Koch ; Ferula Asafætida L ; F. persica, Willd. ; Dorema Ammoniacum, D. Don, &c.—Others, lastly, in which a bitterish principle without aroma predominates, are generally speaking, suspicious, and offer in a high degree narcotically poisonous, f. ex. Oenanthe crocata, L. ; O. Phellandrium, Lam. ; Conium maculatum, L. ; (Common Hemlock), Æthusa Cynapium, L. (Fool's Parsley); Cicuta vicosa, L. (Water Hemlock); &c,. Of the Indian species of this order none has been found poisonous.

HYDROCOTYLE, Tourn. (*DC. pr.* 4, *p.* 59. *W. and A. pr.* 1, *p.* 366.)

1. *asiatica*, L. (*DC. pr.* 4, *p.* 54 ;—*W. and A. pr. l. c.* ;—*Roxb. fl. ind.* 2, *p.* 88 ;—*J. Grah. Cat. B. pl. p.* 84.—*Rheed*, 10, *t.* 46.) থলকুড়ী *Thulkooree.* ♃ Asia, Africa, America.—Fl. small, purplish red, R. and CS.—fr. C. S.
2. *rotundifolia*, Roxb. (*fl. ind.* 2, *p.* 88 ;—*DC. pr.* 4, *p.* 64.) ♃ Silhet. In H. C. G. ; fl. R. S. ; fr. C. S.

ASTRANTIA, Tourn. (*DC. pr.* 4, *p.* 86.)

1. *helleborifolia*, Salisb. (*DC. o. c. p.* 87.—A. maxima, *Pall.*—*B. M.* 38. *t.* 1553.) ♃. Caucasus. Fl. largish, pale rose-coloured, C. S.

APIUM, Hoffm. (*DC. pr.* 4, *p.*100 ;—*W. and A. pr.* 1, *p.* 367.) *Celery.*

1. *graveolens*, L. (*DC. o. c. p.* 101.—*W. and A. l. c.* ;—*Roxb. H. B. p.* 22 ;—*J. Grah. Cat. B. pl. p.* 84 ;—*E. B.* 17. *t.* 1210.) *Common Celery.* ♂ Whole of Europe down to Caucasus. Falkland-Islands. Cultivated in India. Fl. small, greenish-white, Feb. ; fr. March and April.

PETROSELINUM, Hoffm. (*DC. pr.* 4, *p.* 102.) *Parsley.*

1. *sativum*, Hoffm. (*DC. l. c.*—Apium Petroselinum, L. *Roxb. H. B. p.* 22;—*J. Grah. Cat. B. pl. p.* 84.) *Common Parsley* বিলাতিপির্তসিল্লি *Bilati Pitursilli.* ♂ Sardinia; Greece; Turkey, near Constantinople, &c. Fl. small, yellowish, C. S; fr. H. S. Cultivated in India.

2. *segetum*, Koch. (*DC. pr.* 4. *p.* 102.—Sison segetum, *L.; E. B.* 4, *t.* 228.) ♂ England, France, Switzerland. Fl. very small, pale rose-coloured, C. S.; fr. H. S.

HELOSCIADIUM, Koch. (*DC. pr.* 4, *p.* 104;—*W. and A. pr.* 1, *p.* 367.)

1. *Heyneanum*, DC. (*o. c. p.* 106;—*W. and. A. o. c. p.* 368.—Anethum trifoliatum, *Roxb. fl. ind.* 2. *p.* 96.) ⊙ Circars. Fl. C. S.

PTYCHOTIS, Koch. (*DC. pr.* 4, *p.* 107;—*W. and A. pr.* 1, *p.* 368.)

1. *Ajowan*, DC. (*o. c. p.* 109;—*W. and A. l. c.*—*J. Grah. Cat. B. pl. p.* 84.—Ligusticum Ajowan, *Roxb. fl. ind.* 2. *p.* 91.) বড়যোআন *Boro-joan.* ⊙ Native place? Cultivated all over India. Fl. small, white, C. S; fr. H. S.—*Seeds* of an aromatic smell, a warm, pungent taste; much used by the natives for medicinal and culinary purposes.

SISON, L. (*DC. pr.* 4, *p.* 110.)

1. *Amomum*, L. (*DC. l. c.*;—*E. B.* 14, *t.* 954.) ♂ ⊙ England, France, Geneva, Italy, Greece. Fl. small, white, C. S.; fr. H. S. *Seeds* pungent, aromatic.

CARUM, Koch. (*DC. pr.* 4, *p.* 114.)

1. *Carvi*, L. (*DC. o. c. p.* 115;—*E. B.* 21, *t.* 1503.) *Common Caraway.* 4. Europe. Fl. small, whitish, C. S., but rare; fr. 0.

PIMPINELLA, L. (DC. pr. 4, p. 119; W. and A. pr. 1, p. 368.)

1. *Anisum*, L. (*DC. l. c. p.* 122.) ⊙ Island of Scio, Egypt. Cultivated in Europe. Fl. small, white, C. S.; fr. H. S. Seeds (*common Aniseeds*) aromatic, pungent, sweetish.

? 2. *involucrata*, W. and A. (*Pr.* 1, *p.* 369;—*Wight. icon.* 2, *t.* 335.) Apium involucratum, *Roxb. H. B. p.* 22.—Apium, *Roxb. fl. ind.* 2, p. 97. Ptychotis Roxburghiana, *DC. pr.* 4, *p.* 109.) রাঁধনী *Radhunee.* ⊙ Cultivated all over Bengal, at Singapore, Prome, &c. Native place? Fl. small, white, Febr.; fr. March and April. *Seeds* used by the natives for culinary and medicinal purposes. The *leaves*, though of an unpleasant smell, are now and then used as a substitute for Parsley by Europeans.

OENANTHE, Lam. (*DC. pr.* 4. *p.* 136.)

1. *Phellandrium*, Lam. (*DC. l. c. p.* 138.—Phellandrium aquaticum, *L. E. B.* 10. *t.* 684.) *Water Hemlock.* ♂ Watery places of Europe, Tauria, Siberia. Fl. small, white, C. S.; fr. 0. ⊙. *Leaves* and *seeds* smelling and tasting somewhat like those of Chervil, but suspicious, if not really dangerous.

2. *stolonifera*, DC. (*pr.* 4, *p.* 138—Phellandrium stoloniferum, *Roxb. fl. ind.* 2, *p.* 93.) পাণতোরাসি *Pantorasee.* 4. Bengal. Fl. small, white,

C. and H. S.; fr. H. S. *Leaves* and *seeds* somewhat unpleasantly aromatic. Not used among the natives. (*Roxb.*)

Dasyloma, DC. (*Pr.* 4, *p.* 140.)

1. *bengalense*, DC. (*L. c.*—Seseli bengalense, *Roxb. fl. ind.* 2, *p.* 94.) ⊙ Bengal.—In H. C. G. fl. Feb.; fr. H. S.
2. *glaucum*, DC. (L. c.) India? Cultivated in H. C. G. (*DC.*)

Aethusa, L. (*DC. pr.* 4, *p.* 141.)

1. *Cynapium*, L. (*DC. l. c.*;—*E. B.* 17, *t.* 1192.) *Fool's Parsley.* ⊙ Europe. Fl. small, white C. S.; fr. 0. The *whole plant* has a dull dark green appearance, and nauseous garlick-scent. It is a deadly poison.

Foeniculum, Adans. (*DC. pr.* 4, *p.* 142;—*W. and A. pr.* 1, *p.* 370.)

1. *vulgare*, Gärtn. (*DC. l. c.*;—*W. and A. o. c. p.* 371;—*J. Grah. Cat. B. pl. p.* 84.—Anethum Fœniculum, *L.*; *Roxb. H. B. p.* 22;—*E. B.* 17, *t.* 1208.) *Common Fennel.* ♂ Europe. Fl. small, yellow, Febr.; fr. March and April.
2. *Panmori*, DC. (*Pr.* 4, *p.* 142.—Anethum Panmori, *Roxb. fl. ind.* 2, *p.* 94,) পানমহুরি *Pan-muhoree.* ⊙ Native place? Cultivated in Bengal. Fl. small, bright-yellow, Febr.; fr. March and April. *Seeds* of a pleasant, sweet, warmish taste, used for culinary and medicinal purposes, especially among the natives.

Cnidium, Cusson. (*DC. pr.* 4, *p.* 152.)

1. *diffusum*, DC. (*o. c. p.* 153.—Ligusticum diffusum, *Roxb. fl. ind.* 2, *p.* 92.) বনযোআন *Bunjoan.* ⊙ Lower Bengal. (Serampore.) Fl. small, white, C. S.; fr. H. S. *Seed* used as a medicine for cattle. (*Roxb.*)

Anethum, L. (*DC. pr.* 4, *p.* 185;—*W. and A. pr.* 1, *p.* 371.)

1. *Sowa*, Roxb. (*Fl. ind.* 2, *p.* 96;—*DC. o. c. p.* 186;—*W. and A. o. c. d.* 372.) শুলফা *Soolpha.* ⊙ Peninsula of India. Bengal, (Serampore.) Cultivated. *Fl.* small, yellow, Febr; fr. March and April. *Seeds* aromatic, used for culinary and medicinal purposes among the natives.
2. *graveolens*, L. (*DC. pr.* 4, *p.* 96;—*Roxb. H. B. p.* 22;—*Fl. dan. t.* 1572.) *Dill.* ⊙ S. Europe, Astracan, Egypt. Fl. small, yellow, Feb.; fr. March and April.
3. *segetum*, L. (*DC. pr.* 4, *p.* 96.) ⊙ France, Portugal, Sardinia, Greece, Persia. Fl small, yellow, C. S.; fr. February and March.

Pastinaca, L. (*DC. pr* 4, *p.* 188.)

1. *sativa*, L. (*DC. l. c.*;—*Roxb. H. B. p.* 22;—*J. Grah. Cat. B. pl. p.* 84.)
   α. sylvestris. (*E. B.* 8, *t.* 556.) *Wild Parsnip.* ♂ Europe, down to Caucasus. Fl. small, pale yellow, C. S.
   β. edulis. Cultivated Parsnip.

Tordylium, L. (*DC. pr.* 4, *p.* 197.)

1. *officinale*, L. (*DC. o. c. p.* 198;—*E. B.* 34, *t.* 2440.) ⊙ England, Portugal, S. France, Italy, Greece. Fl. smallish, white, C. S.; fr. H. S.

KRUBERA, Hoffm. (*DC. pr.* 4, *p.* 199.)

1. *leptophylla*, Hoffm. (*DC. l. c.*) ⊙ Canaries, Madeira, Spain, Portugal, Greece, &c. Fl. small, white, Feb.; fr. March and April.

CUMINUM, L. (*DC. pr.* 4. *p.* 201;—*W. and A. pr.* 1. *p.* 373.)

1. *Cyminum*, L. (*DC. l. c.—W. and A. l. c.—Roxb. fl. ind.* 2. *p.* 92;—*J. Grah. Cat. B. pl. p.* 84.) *Cumin.* Jeera. ⊙ Upper Egypt, Æthiopia. Fl. small, white, C. S.;—fr.—

DAUCUS, L. (*DC. pr.* 4. *p.* 209.—*W. and A. pr.* 1. *p.* 374.)

1. *Carota*, L. (*DC. o. c. p.* 211.—*E. B.* 17. *t.* 1174.)—*Wild Carrot.* ♂ Europe, Tauria, Caucasus, &c. Fl. small, cream-coloured,—C. S. fr. H. S.

   β. *sativa, W. and A. l. c.*;—*Roxb. fl. ind.* 2. *p.* 90;—*J. Grah. Cat. B. pl. p.* 84. *Cultivated Carrot.* গাজর *Gajur*, Fl. C. S.—fr. H. S.—Forms a staple article of food in the eastern parts of the Deccan, during the cold season. (*Dr. Gibson.*)

TORILIS, Spr. (*DC. pr.* 4, *p.* 218;—*W. and A. pr.* 1. *p.* 374.)

1. *Anthriscus*, Gmel. (*DC. l. c.—W. and A. l. c.*—Caucalis Anthriscus, *Scop.; E. B.* 14, *t.* 987.) ⊙ Europe. Fl. small, white, tipped with purple, Feb.; fr. March.

SCANDIX, L. (*DC. pr.* 4, *p.* 220.)

1. *Pecten Veneris*, L. (*DC. o. c. p.* 221;—*E. B.* 20. *t.* 1397.) *Needle Chervil.* ⊙ Europe, Levant. Fl. small, white, C. S; fr. H. S.

ANTHRISCUS, Hoffm. (*DC. pr.* 4. *p.* 222.)

1. *vulgaris*, Pers. (*DC. o. c. p.* 224.—Scandix Anthriscus, *L.; E. B.* 12. *t.* 818.) *Rough Chervil.* ⊙ Europe, down to Tauria. Fl. small, white, C. S; fr. H. S.
2. *Cerefolium*, Hoffm. (*DC. o. c. p.* 223.—Scandix Cerefolium, *L.; E. B.* 18. *t.* 1268.) *Garden Chervil.* ⊙ Europe. Fl. small, white, C. S.; fr. H. S.

CORIANDRUM, L. (*DC. pr.* 4. *p.* 250.)

1. *sativum*, L. (*DC. l. c. Roxb. fl. ind.* 2, *p.* 94;—*J. Grah. Cat. B. pl. p.* 85;—*E. B.* 1, *t.* 67.) *Coriander.* ধনয়া Dhunya. ⊙ Greece, Levant, Tartary. Cultivated in India. Fl. small, white, C. S.; fr. H. S.

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* *Didiscus coeruleus*, Hook. B. M. 55, t. 2875. ⊙ N. Holl. *Spananthe paniculata*, Jacq. ⊙ Caracas. *Trinia Kitaibelii*, Bieb. ♂ Tauria. *Ptychotis heterophylla*, Koch. ♂ S. Europe. *P. verticillata*, Duby. ⊙ Portugal. *P. coptica*, DC. ⊙ Egypt. *Ammi majus*, L. ⊙ ♂ S. Europe. *A. Visnaga*, Lam. ⊙ ♂ (*Herb aux cure-dents.*) S. Europe. *Hasselquistia ægyptica*, L. ⊙ Egypt. *Tordylium maximum*, L. E. B. 17, t. 1173. ⊙ England, S. Europe. *Arracacha esculenta*, DC. B. M. 58, t. 3092. ♃. Sta Fé de Bogota. *Smyrnium Olusatrum*, L.; E. B. 4, t. 230. ♂ England. S. Europe.

ORDER XI.—HEDERACEÆ, A. Rich. (Bot. med.—as to the name.)

Araliaceæ, A. Rich. Dict. class. d'hist. nat.—Lindl. nat. syst. p. 25.

THE IVY TRIBE.

Trees, shrubs, (sometimes climbing) rarely herbs, according to DC. pr. (1830) containing 14 genera and 123 species: 46 from the E. Indies; 42 from S. America; 8 from N. America; 5 from N. Zealand; 4 from the W. Indies; 3 from China; 3 from Japan; 3 from S. Africa; (5 *Harvey*) 3 from Mauritius and Bourbon; 1 from Madagascar; 2 from New Holland and the Sandwich Islands; 2 from Europe; and 1 unknown, as to its native place.—The E. Indian forms have since risen to 75; viz. 22 of *Panax;* 1 of *Gilibertia?* 1 of *Toricellia;* 2 of *Aralia;* 10 of *Sciodaphyllum;* 27 of *Hedera;* 9 of *Paratropia;* and 3 of *Arthrophyllum.* The greatest number of these inhabit the Moluccas, Java, and the Himalayas; the rest have been discovered on the Khassya mountains, in the two Peninsulas of India, Ceylon and Cochin China.—We are not acquainted with Endlicher's genus, Botryodendron.

"The plants of this family are not possessed of very decided medical properties, though the *Ginseng*, produced by Panax quinquefolia, L., has been more celebrated than plants of greater value. This plant, produced in the mountains of Chinese Tartary, between 39° and 47°, was recognized from the description in Canada and Virginia, whence it is now exported to China. Subsequently the same plant, or a species so closely allied to it, that Dr. Wallich had called it *Panax Pseudo-Ginsing*, (Pl. as. rar. 2, t. 137), was discovered by him on Sheopore, at an elevation of 9000 to 10,000 feet, an additional instance of the existence of similar plants in the mountains of China, N. America, and the Himalayas." (*Royl. ill. p.* 233 and 234.) Aralia nudicaulis, L. is used in N. America as a substitute for Sarsaparilla.

PANAX, L. (*DC. pr.* 4, *p.* 252;—*W. and A. pr.* 1, p. 376.) Panax, acis, f. Lucret.

1. *aculeata*, Ait. (*DC. l. c.*;—*Jacq. icon. rar.* 3. *t.* 634.) ♄. China. Fl. small, greenish, C. S.
2. *cochleata*, DC. (*o. c. p.* 253;—*J. Grah. Cat. B. pl. p.* 85. Panax conchifolium, *Roxb. fl. ind.* 2, *p.* 77.—*Rumph.* 4. *t.* 31.) ♄ Moluccas, Java. Does not fl. in Bengal, and rarely in the Moluccas. *Whole plant*, when dried, strongly smelling of Celery.
3. *fragrans*, Roxb. (*Fl. ind.* 2. *p.* 76;—*DC. pr.* 4, *p.* 254;—*J. Grah. Cat. B. pl. p.* 85.) 5. Khassya Mountains, Nepal. Fl. small, fragrant C. S; fr. H. S.
4. *fruticosa*, L. (*DC. pr.* 4, *p.* 254;—*Roxb. fl. ind.* 2, *p.* 76;—*W. and A. pr.* 1, *p.* 376;—*J. Grah. Cat. B. pl. p.* 85;—*B. Repos.* 9. *t.* 595.—*Rumph.* 4. *t.* 33.) ♄. Moluccas, Java. Fl. small, brownish green,

May and June; fr. C. S. *Pulp of berries* stains paper of a dark violet colour. *Whole plant*, especially dried, smelling strongly of Celery.

5. *digitata*, Roxb. (*Fl. ind.* 2, *p.* 75.) ♄. Silhet. Fl. small, greenish-yellow. In H. C. G.—fl. C. S; fr. H. S. (*Roxb.*)

6. *palmata*, Roxb. (*Fl. ind.* 2, *p.* 74.) ♄. Chittagong. Fl. small, white. In H. C. G.—fl. Sept. and Oct.; fr. Nov. (*Roxb.*)

Sciodaphyllum, P. Browne. (*DC. pr.* 4, *p.* 259.)

? 1. *pulchrum*, Wall. 5. Native place? In H. C. G. fl. Feb.

Paratropia, DC. (*Pr.* 4, *p.* 265;—*W. and A. pr.* 1, *p.* 377.)

1. *digitata*, (P. venulosa, *W. and A. l. c.*;—*Wight. ill.* 2, *t.* 118;—*J. Grah. Cat. B. pl. p.* 85.—Aralia digitata, *Roxb. fl. ind.* 2. *p.* 107.—*not Willd. Rheed.* 7, *t.* 28.) 5 Circars, Lukshmepur. Fl. small, greenish-yellow, April and May; fr. R. S. *Leaves*, when rubbed, smelling of turpentine.

2. *umbraculifera*, Wall. (*Rept.*—Aralia umbraculifera, *Roxb. fl. ind.* 2. *p.* 108.—*Rumph.* 1. *t.* 53, *p.* 1.) 5 Moluccas. Fl. small, greenish, April.

Hedera, L. (*DC. pr.* 4, *p.* 261;—*W. and A. pr.* 1, *p.* 376.) *Ivy.*

1. *palmata*, Wall. Cat. (Gastonia palmata, *Roxb. fl. ind.* 2. *p.* 407;—*B. Reg.* 11. *t.* 894. Gilibertia palmata, *DC. pr.* 4, *p.* 256.) 5. Chittagong, Nepal. Fl. largish, white.—In H. C. G. Fl. ?

2. *heterophylla*, Wall. Cat. Penang. In H. C. G. Fl. ?

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* *P. attenuata*, Swz. ♄ W. Indies. *P. chrysophylla*, Vall. ♄. Guiana.—*Paratropia Wallichiana*, W. and A. ♄. Courtallum. *Gastonia cutispongia*, Lam. ♄. Bourbon. (*Bois d'eponge.*) *Hedera repanda*, W. and A. (Gilibertia repanda, DC.) 5. Mauritius. *H. paniculata*, W. and A. (Gilibertia paniculata, DC.) ♄. Mauritius. *H. terebinthacea*, Vall. Penang. Courtallum.

ORDER XII.—GROSSULACEÆ, Mirb. Lindl. Nat. Syst. p. 26.

THE CURRANT TRIBE.

Shrubs, unarmed or thorny, arranged under 5 genera *(Spach.)* containing, according to DC. pr. (1828), 53 species, of which 49 inhabit N. America; 6 Siberia; 5 Europe; 2 Caucasus; 1 Syria; 11 Mexico, Chili and Peru; and 1 the vicinity of the Straits of Magellan. Three of these are common to several countries, and 1 unknown, as to its native place. Six or more have since been added from N. America, and 4 from the *Himalayas.* To this order belong Ribes Grossularia, L. (Gooseberry); R. rubrum, L. (Red Currant); and R. nigrum, L. (Black Currant.) Their refreshing flavour is well known, whereas the fruit of the other species is unpleasantly acrid.

RIBES, L. (*DC. pr.* 3, *p.* 477.)

1. *Grossularia*, L. (*E. B.* 18, *t.* 1291. R. uva crispa, L. ξ sativum, *DC. o. c. p.* 478.) ♄ Europe, Siberia. Cultivated. This is the only species of the order, which has fl. here, and that only once in the H. S. Wall. Cat. mentions it as an inhabitant of Buddrinath, near the almost inaccessible sources of the Ganges; Royle, however, puts it down as a distinct species, under the name of *R. Himalense*.

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* *Ribes orientale*, Poir. ♄ Syria.

ORDER XIII.—ESCALLONIACEÆ, Lindl. Nat. Syst. p. 27.

Handsome shrubs, of 7 genera, and 34 species: 23 in S. America, at elevations of 6,000 to 14,760 feet (*Humb.*); 2 in N. America; 1 in Bourbon; 2 in New Holland; 1 in Van Diemen's Land, and 5 in the E. Indies. (*Polyosma.*)—Properties unknown.

ITEA, L. (*DC. pr.* 4, *p.* 6.)

1. *virginica*, L. (*DC. l. c.*;—*B. M.* 50. *t.* 2409.) ♄ Pennsylvania.—Lately introduced.

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* *Forgesia borbonica*, Pers. ♄ Bourbon.—*Polyosma fragrans*, Bennet. (Itea? fragrans, Wall.) ♄ Singapore. *P. Wallichii*; Bennet. ♄ Khassya mountains.

ORDER XIV.—BERBERACEÆ, Lindl. Nat. Syst. p. 29.

THE BERBERRY TRIBE.

Shrubs or perennial herbs, of 10 genera, and more than 60 species: 23 S. American; 6 N. American; 5 European; 3 Siberian; 4 from the Levant; 2 from China; 5 or more from Japan; and 9 (*Berberis*) from India. Of the latter, 6 are Himalayan; 2 from the Neelgherries; and 1 from Kunawur.—The common Berberry is well known.—Properties of the rest of no great importance.

BERBERIS, L. (*DC. pr.* 1, *p.* 105; *W. and A. pr.* 1, *p.* 15.)

1. *asiatica*, Roxb. (*Fl. ind.* 2, p. 182;—*DC. o. c. p.* 107;—*Deless. icon. sel.* 2, *t.* 1.) ♄ Nepal, Kemaon. Fl. small, yellow, February and March; fr. R. S.
2. *Leschenaultii*, Wall. (*W. and A. pr.* 1, *p.* 16.—Mahonia Napaulensis, DC. β. Roxburghii, *DC. pr.* 1, *p.* 109.—Berberis pinnata, *Roxb. fl. ind.* 2, *p.* 184.) ♄ Neelgherries, alt. 8000 f. Munipore. (Roxb.) Fl. smallish, bright yellow, January.

3. *aristata*, DC. (*pr.* 1, *p.* 106;—*B. M.* 52, *t.* 2549.—B. Chitria, *Buch. B. Reg.* 9, *t.* 726.) ♄ Nepal, Kemaon, Mussooree.—Introduced into H. C. G. Fl. ?

NANDINA, Thunb. (*DC. pr.* 1, *p.* 109.)

1. *domestica*, Thunb. (*DC. l. c;—Roxb. fl. ind.* 2, *p.* 184;—*B. M.* 28, *t.* 1109.) ♄ Japan.—Has not fl. here, though cultivated for many years.

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* *Berberis ruscifolia*, Lam. ♄. Buenos Ayres. *B. Lycium*, Royle. ♄. Mussooree, 3000 f. alt. *B. tinctoria*, Lesch. Wight. icon. 1, t. 8. ♄. Neelgherries. *B. Nepalensis*, Spr. ♄. Nepal. *B. dealbata*, Lindl. B. Reg. 21, t. 1750.=♄. Mexico. *B. tenuifolia*, Lindl. ♄. Vera Cruz.

ORDER XV.—VITACEÆ, Lindl. Nat. Syst. p. 30.

THE VINE TRIBE.

Climbing, sarmentose, sometimes simple shrubs, rarely herbs. Excluding 8 of DC's. untenable species, his pr. (1824) enumerates, under 5 genera, 102 forms; viz. 32 E. Indian; 20 S. American; 11 N. American; 11 W. Indian; 4 from Madagascar, Bourbon and Mauritius; 4 S. African; 4 from Guinea; 1 from Zanguebar; 4 Arabian; 3 Syrian and Armenian; 2 Japanese; 2 from Timor; 1 from New Holland; and 3 unknown, as to their native place. Since then, the number of forms has been considerably increased, f. ex. in S. Africa to 16, (*Harvey,*) and in the E. Indies to 108. Of the latter, 87 species belong to (*Vitis;* Vitis, Cissus and Ampelopsis, Auct.) 20 to *Leea;* and 1 to *Pterisanthes.* There can, however, be no doubt, that upon a strict examination of authentic specimens, the number will be much reduced, as the leaves, from which their specific characters are chiefly drawn, are but little to be relied on either in Vitis or Leea.

The properties of the grape and its products are well known. The leaves of several species are acrid, or astringent, or sometimes with the young shoots and fruit so acrid, that according to Wight. (*Ill.* 1, *p.* 151,) the mere taste of a berry, is sufficient to cause in a short time the most insufferable sense of burning all over the mouth and fauces, lasting for several hours. With the exception of, perhaps, the N. American Fox-grapes, the grape-vine would seem to be the only species of Vitaceæ possessed of valuable properties.

VITIS, L. (*R. Br., W. and A. pr.* 1, *p.* 125.) Vine.

1. *quadrangularis*, Wall. (*W. and A. l. c.; Wight. icon.* 1, *t.* 51. Cissus quadrangularis, *L. DC. pr.* 1, *p.* 628.—*Roxb. fl. ind.* 1, *p.* 407; *ed. Carey*, 1, *p.* 426;—*J. Grah. Cat. B. pl. p.* 33;—*Rheed.* 4, *t.* 41;—*Rumph.* 5, *t.* 44, *f.* 2.) হড়জোড়া *Hurjora.* ♃. ◡ Both Peninsulas of India, Bengal, (Serampore.) Fl. small, white, R. S.; fr. C. S. *Tender leaves* and *young shoots* eaten by the natives. *Berries* very acrid.

2. *pallida,* W. and A. (*pr.* 1, *p.* 125 ;—*Wight. icon.* 1, *t.* 50.—Cissus vitiginea, *Roxb. fl. ind.* 1, *p.* 406 ; *ed. Carey,* 1, *p.* 424, not L. ;—*J. Grah. Cat. B. pl. p.* 33.) গোয়ালিয়ালতা *Goaliya-luta.* ♄ ◡ Peninsula of India. Bengal (Serampore.) fl. small, red, R. S.; fr. C. S.
3. *cordata,* (Cissus cordata, *Roxb. fl. ind.* 1. *p.* 407. excl. syn. Rheed. ;—*ed. Carey,* 1. p. 425 ;—*J. Grah. Cat. B. pl. p.* 32 ;—*Rumph.* 5, *t.* 164.*f.* 1.) ♄ ◡. Amboyna. Fl. small, purplish. In H. C. G. fl. R. S. (*Roxb.*) *Leaves* very acrid.
4. *glauca,* W. and A. (*pr.* 1. *p.* 126.—Cissus glauca, *Roxb. fl. ind.* 1, p. 406 ; *ed. Carey,* 1, *p.* 425 ;—*DC. pr.* 1, *p.* 628 ;—*J. Grah. Cat. B. pl. p.* 32.) গরগোয়ালিয়া *Gur-goaliya.* ♄ ◡. Travancore, Permacoil. The Concans. Bengal, (Serampore.) Fl. small, H. S.; fr. R. S.
5. *adnata,* Wall. (*W. and A. pr.* 1. *p.* 126;—*Wight. icon.* 1. *t.* 144. Cissus adnata, *Rox. fl. ind.* 1, *p.* 405 ; *ed. Carey,* 1, *p.* 423 ;—*DC. pr.* 1, *p.* 627.—Cissus latifolia, *Vahl.—DC. o. c. p.* 628 ; not Lam. ;—*J. Grah. Cat. B. pl. p.* 32, excl. syn. *Rumph.*) ♄ ◡ Both Peninsulas of India. Bengal, (Serampore.) Fl. small, green, May and June ; fr. Sept.
6. *pentagona,* (Cissus pentagona, *Roxb. fl. ind.* 1, *p.* 408 ; *ed. Carey,* 1, *p.* 426.) ♄ ◡. Chittagong. In H. C. G. Introduced in 1810, but had not fl. up to 1814.
7. *carnosa,* Wall. (*W. and A. pr.* 1, *p.* 127 ;—*Wight. icon.* 1, *t.* 171.—Cissus carnosa, *Roxb. fl. ind.* 1, *p.* 409 ; *ed. Carey,* 1, *p.* 427.—*J. Grah. Cat. B. pl. p.* 33.—*Rheed.* 7, *t.* 9. *Rumph.* 5, *t.* 166.*f.* 2.) ♄ ◡ Both Peninsulas of India. Bengal, (Serampore.) Plains of N. India. Fl. small, green, R. S.; fr. C. S. The *tender leaves* are according to Rumphius, eaten as a pot-herb in Amboyna. In Bengal no use is made of the plant, nor is there a native name for it.
8. *elongata,* Wall. (*W. and A. pr.* 1, *p.* 128.—Cissus elongata. *Roxb. fl. ind* 1, *p.* 411 ; *ed. Carey,* 1, *p.* 429 ;—*DC. pr.* 1, *p.* 631.) ধেনা *Dhena.* ♄ ◡ Mountains of Coromandel. Bengal, (Serampore.) Fl. small, purplish-green, H. S.; fr. R. S.
9. *angustifolia,* Wall. (*Wight. icon.* 1, *t.* 176.—Cissus angustifolia, *Roxb. fl. ind.* 1, *p.* 408 ;—*ed. Carey,* 1, *p.* 427.) ♄ ◡ Fl. small, greenish-yellow.—In H. C. G. fl. Feb. ; fr. Sept. (Roxb.)
10. *lanceolaria,* Wall. (*W. and A. pr.* 1, *p.* 128. ;—*Wight. icon.*1, *t.* 28, *and* 177.—Cissus lanceolaria, *Roxb. fl. ind.* 1, *p.* 412 ; *ed. Carey,* 1, *p.* 430 ;—*DC. pr.* 1, *p.* 632 ;—*J. Grah. Cat. B. pl. p.* 33.) ♄ ◡ Both Peninsulas of India ; Silhet; Nepal. Fl. small, pale yellow, Feb. and March.
11. *pedata,* Wall. (*W. and A. pr.* 1, *p.* 128—Cissus pedata, *Lam. ;—Vahl. ;—Roxb. fl. ind.* 1, *p.* 413 ;—*ed. Carey,* 1, *p.* 431 ;—*DC. pr.* 1, *p.* 632 ;—*J. Grah. Cat. B. pl. p.* 33 ;—*Rheed.* 7, *t.* 10.) ♄ ◡ Both Peninsulas of India. Bengal, (Serampore,) as far as Monghyr. Fl. small, green, R. S. ; fr. C. S.

12. *auriculata*, Wall. (*W. and A. pr. p.* 129 ;—*Wight. icon.* 1, *t.* 145.—Cissus auriculata, *Roxb. fl. ind.* 1, *p.* 411 ;—*ed. Carey*, 1, *p.* 430 ;—*J. Grah. Cat. B. pl. p.* 246 ;—*DC. pr.* 1, *p.* 632.) ♄ ◡ Both Peninsulas of India. Rajmahl.—Fl. small, green, and fr. throughout the year.

13. *serrulata*, Wall. (*Cat.*—Cissus serrulata, *Roxb. fl. ind.* 1, *p.* 414 ;—*ed, Carey*, 1, *p.* 432 ;—*DC. pr.* 1, *p.* 632.) ♄ ◡ Chittagong. In H. C. G. fl. April and May. (*Roxb.*)

14. *vinifera*, L. (*DC. pr.* 1, *p.* 633 ;—*W. and A. pr.* 1, *p.* 130 ;—*J. Grah. Cat. B. pl. p.* 33 ;—*Roxb. H. B. p.* 18 ;—*Jacq. icon, rar.* 1, *t.* 50.) *Grape Vine.* অঙ্গুরেরগাছ *Angoorer-gachh.* ♄ ◡ Country round the Caspian Sea, Armenia, Caramania ; cultivated in India. Fl. small, greenish, Feb. and March ; at Serampore good grapes are to be had in April and May.

15. *latifolia*, Roxb. (*Fl. ind.* 1, *p.* 661 ; *ed. Carey*, 2, *p.* 474 ;—*W. and A. pr.* 1, *p.* 130 ;—*Rheed.* 7. *t.* 11 ?) ♃. ◡ Hills of Coromandel. Bengal, (Serampore). Kheree jungles. Fl. small, reddish-brown, May and June ; fr. July and August.

16. *lanata*, Roxb. (*Fl. ind.* 1, *p.* 660 ; *ed. Carey*, 2, *p.* 474 ;—*W. and A. pr.* 1, *p.* 131 ;—V. Heyneana, *DC. pr.* 1, *p.* 634.) ♄ ◡. Circars. Bengal, (Serampore.) Assam, Khassya Mountains, Sirmore, Kemaon, Deyra Dhoon. Fl. small, green, April and May ; fr. R. S.

17. *indica*, L. (*DC. pr.* 1, *p.* 634 ;—*Roxb. fl. ind.* 1, *p.* 660 ; *ed. Carey*, 2, *p.* 473 ;—*W. and A. pr.* 1, *p.* 131 ;—*J. Grah. Cat. B. pl. p.* 33 ;—*Rheed.* 7, *t.* 6.) আমক্লোকা *Amclouka.* ♄ Peninsula of India. Bengal, (Serampore.) Fl. small, yellowish, March and April ; fr. June, July, and August.

18. *parvifolia*, Roxb. (*Fl. ind.* 1, *p.* 662 ;—*ed. Carey*, 2, *p.* 475.) ♄. Khassya Mountains, Nepal, Sirmore. Fl. minute, green. In H. C. G. fl. March and April. (*Roxb.*)

19. *glandulosa*, Wall, (*Roxb. fl. ind. ed. Carey*, 2, *p.* 479.) ♄ ◡ Nepal. Fl. small, in H. C. G., May and June. (*Wall.*)

Vitis capensis has been many years in the garden here, but has never fl.

Leea, L. (*DC. pr.* 1, *p.* 635 ;—*W. and A. pr.* 1, *p.* 131.)

1. *macrophylla*, Roxb. (*Fl. ind.* 1, *p.* 653 ; *ed. Carey*, 2, *p.* 465 ;—*J. Grah. Cat. B. pl. p.* 247 ;—*not* DC. ;) ঢোলসমুদ্রিয়া *Tolsumoodriya.* ♃. Bengal, (Serampore.) Both Concans. Towards the Ghauts. Fl. small, white, R. S. ; fr. C. S.—*Root* astringent, mucilaginous. (*Roxb.*) Reputed to be a remedy for the Guinea-worm. (*J. Grah. l. c.*)

2. *crispa*, L. (*DC. pr.* 1, *p.* 635 ;—*Roxb. fl. ind.* 1, *p.* 654, *ed. Carey*, 2, *p.* 467, excl. syn. Rheede, L. pinnata, *Andr. B. Repos.* 5, *t.* 355.) বনচালিতা *Bun-chalita.* ♃. Silhet, Burma, Lower Bengal, (Serampore.) Fl. small, white, R. S ; fr. C. S.

3. *robusta*, Roxb. (*Fl. ind.* 1, *p.* 655 ; *ed. Carey*, 2, *p.* 468 ;—*W. and A. pr.* 1, *p.* 132.) ♄. Circars, Java. Fl. small, green, R. S. ; fr. December and March.

4. *hirta*, Banks. (*Roxb. fl. ind.* 1, *p.* 656, *ed. Carey*, 2, *p.* 469.) ককজঙ্ঘা *Kokojongha.* ♄ Lower Bengal, (Serampore.) Fl. small, greenish, R. S.; fr. C. S.
5. *Staphylea*, Roxb. (*Fl. ind.* 1, *p.* 658; *ed. Carey*, 2, *p.* 471;—*W. and A. pr.* 1, *p.* 132;—*J. Grah. Cat. B. pl. p.* 33.—L. Ottilis, *DC. pr.* 1, *p.* 636.—Staphylea? indica, *Burm. ind. t.* 24, *f.* 2.—Gilibertia Nalugu, *DC. pr.* 4, *p.* 256.) কুকুরজিহ্বা *Kookoor-jihva.* ♄ Both Peninsulas of India, Sirmore, Nepal, Lower Bengal, (Serampore.) Fl. small, pale-green, R. S.; fr. C. S.
6. *sambucina*, Willd. (*DC. pr.* 1. *p.* 635? *Roxb. fl. ind.* 1, *p.* 657; *ed. Carey*, 2, *p.* 470;—*Rumph.* 4, *t.* 45.) ♄ Moluccas, Penang. Fl. small, yellow, R. S.; fr. C. S.
7. *parallela*, Wall. Cat. Pegu.
8. *sanguinea*, Wall. MSS. Irawaddi.

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* *Vitis semicordata*, Wall. ♄ Nepal. *Pterisanthes cissoides*, Blum. ♄ Java. *Leea integrifolia*, Roxb. ♄ Circars. *L. arborea*, Telf. ♄ Mauritius.

ORDER XVI.—PITTOSPORACEÆ, Lindl. Nat. Syst. p. 31.

Trees or shrubs, simple or twining, of 6 genera, and about 35 species: viz., 15 from New Holland; 2 from Van Diemen's Land; 2 from Australasia; 2 from Mauritius; 1 from Japan and China; 1 from the Moluccas; 1 from S. Africa; 2 from the Canaries; 1 from Madeira; 1 from Guinea; and 5 from India. The latter (species of *Pittosporum*) have been found in Ceylon, on the Neelgherries, at Mussooree, and in the Kheree Pass.

"The wood of Senacia undulata, Lam. is handsomely veined. The berries of Billardiera are eatable, but they have a resinous odour, and a bitter sub-acrid taste. The bark of Pittosporum Tobira, Ait. has a resinous smell." (*Lindl.*) "The seeds of the Indian species are covered with a fragrant resinous fluid, which, however, soon dries on exposure to the air, and loses its smell." (*Wight.*)

Pittosporum, Banks. (*DC. pr.* 1, *p.* 346;—*W. and A. pr.* 1, *p.* 153.)

1. *ferrugineum*, Ait. (*DC. l. c.*;—*B. M.* 46, *t.* 2075.) 5. Guinea. Fl. small, whitish, Feb.; fr. —
2. *verticillatum*, Wall. (*Rept.* P. floribundum, *W. and A. pr.* 1, *p.* 154;—*Royle. ill. p.* 77.—Celastrus verticillata, *Roxb. fl. ind.* 1. *p.* 624; *ed. Carey*, 2, *p.* 393.—Senacia Nepalensis, *DC. pr.* 1, *p.* 347.) 5. Peninsula of India, Nepal, Kheree Pass. alt. 2000 f. Fl. small, whitish, January and June; fr. April and September.
3. *Tobira*, Ait. (*DC. pr.* 1, *p.* 346; *Roxb. fl. ind.* 1, *p.* 631; *ed. Carey*, 2, *p.* 416; *B. M.* 34, *t.* 1396. 5 Japan. Has not fl. here, though cultivated for more than twenty years.

BILLARDIERA, Sm. (*DC. pr.* 1, *p.* 345.)

1. *scandens*, Sm. (*Exot. bot. t.* 1 ;—*DC. l. c.*;—*B. M.* 21, *t.* 801.) ♄ ⌒ New Holland. Fl. ?

SOLLYA, Lindl. (*B. Reg.* 17, *t.* 1466.)

1. *heterophylla*, Lindl. (*l. c.*;—*B. M.* 63, *t.* 3523.) ♄ ⌒ New Holland. Fl. in December.

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* *P. neelgherrense*, W. and A. ; Wight. ill. 1, t. 70. Neelgherries. *P. eriocarpum*, Royle. Mussooree. *Senacia undulata*, Lam. 5. Mauritius. (" *Bois de joli cœur.*")

ORDER XVII.—OLACACEÆ, Lindl. Nat. Syst. p. 32.

Trees or shrubs, sometimes climbing of 12 genera, containing about 29 species : 3 from New Holland ; 2 are common to several countries ; 1 from Martinique ; 1 from Guiana ; 1 from Guinea ; 1 from Jamaica ; 2 from Madagascar ; 1 from Mauritius ; and 17 from the E. Indies. Of the latter, which chiefly inhabit the Peninsula of India, but of which species are also found in Lower Bengal, Chittagong, Silhet, the Khassya Mountains, Ceylon and Java, 10 belong to *Olax ;* 1 to *Ximenia ;* 1 to *Opilia ;* 1 to *Stemonurus ;* 3-4 to *Gomphandra ;* and 1 to *Balanites.*

With the exception of the wood of Heistera coccinea, Jacq. (*Partridge wood* of the Cabinet-makers), the properties of the order would seem to be unimportant.

OLAX, L. (*DC. pr.* 1, *p.* 531;—*W. and A. pr.* 1, *p.* 88.)

1. *scandens*, Roxb. (*Corom.* 2, *t.* 102 ;—*fl. ind.* 1, *p.* 163 ; *ed. Carey*, 1, *p.* 168 ;—*DC. pr.* 1, *p.* 532 ;—*W. and A. pr.* 1, *p.* 89 ;—*J. Grah. Cat. B. pl. p.* 20.) ♄ ⌣ Coromandel-Forests. Fl. small, white, H. S ; fr. C. S.
2. *imbricata*, Roxb. (*fl. ind.* 1, *p.* 164 ; *ed. Carey*, 1, *p.* 169 ;—*DC. pr.* 1, *p.* 532.) ♄ ⌣ Chittagong. In H. C. G. fl. H. S. (*Roxb.*)
3. *phoenicarpa*, Roxb. (*H. B. p.* 4.) **ময়চা** *Moicha.* 5. Silhet. Lower Bengal, (Serampore.) Fl. small, greenish-white, March ; fr. R. S.

XIMENIA, Plum. (*DC. pr.* 1, *p.* 533 ;—*W. and A. pr.* 1, *p.* 89.)

1. *americana*, L. (*DC. l. c.*;—*Roxb. fl. ind.* 2, *p.* 252 ;—*W. and A. l. c.*) ♄ W. Indies, Guiana, Circars. Fl. small, whitish. Introduced into H. C. G. in 1803, but had not fl. up to 1814.

GOMPHANDRA, Wall. (*Wight. ill.* 1, *p.* 102.)

1. *axillaris*, Wall. (Lasianthera ? tetrandra, *Wall.*—*Roxb. fl. ind. ed. Carey*, 2, *p.* 328.) ♄ Khassya Mountains. Fl. small, white. Introduced into H. C. G. Fl. ?

BALANITES, Delile. (*DC. pr.* 1, *p.* 708 ;—*Wight. ill.* 1, *p.* 103.)

1. *ægyptiaca*, Delile, (*DC. l. c.* Ximenia americana, *L.*) 5. Hotter parts of Africa. Cultivated in Egypt.

β. *indica* (Balanites ægyptiaca, *J. Grah. Cat. B. pl. p.* 23.—Ximenia ægyptiaca, *Roxb. fl. ind.* 2, *p.* 253.) हिङ्गन *Hingon.* Deccan, Goozerat, Circars, &c. Fl. small, green, April and May ; fr. 0.

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* *Opilia amentacea*, Roxb ; Wight. ill. 1, t. 40. ♄ Circars, Madras.—*Gomphandra coriacea*, Wight. Pulney Hills. *Heisteria coccinea*, Jacq. ♄. W. Indies. *Fissilia psittacorum*, Lam. ♄ Mauritius.

ORDER XVIII.—FRANCOACEÆ, Ad. Juss. Lindl. Nat. Syst. p. 33.

Found in the temperate parts of S. America. Properties unknown. (*Lindl.*)

Francoa, Cav. (*Spreng. syst.* 2, *p.* 176, *No.* 1519.)

1. *ramosa*, Hook. (*B. M.* 67, *t.* 2824.) ♃. Valparaiso. Introduced into H. C. G. Fl. ?

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* *Francoa appendiculata*, Cav. ;—B. Reg. 19, t. 1645. ♃. Chili.—*Tetilla hydrocotylæfolia*, DC. ♃. Chili.

ORDER XIX.—ŒNOTHERACEÆ, (ONAGRACEÆ, Lindl. Nat. Syst. p. 35.)

THE EVENING PRIMROSE TRIBE.

Shrubs or herbs, (annual or perennial) under 24 genera, (*Lindl. o. c. p.* 523,) amounting to about 252 species ; viz. 80 from N. America ; 60 from S. America ; 28 from Mexico ; 7 from the W. Indies ; 14 from Europe ; 1 from Siberia ; 8 from S. Africa ; 1 from Guinea ; 2 from Senegal ; 1 from Egypt ; 1 from Madagascar ; 1 from Mauritius ; 2 from N. Zealand ; 1 from N. Holland ; 2 from Caucasus ; 1 from Persia ; and 28 from the E. Indies. Six are common to several countries, and of seven, the native places unknown.—Of the E. Indian species, 14 belong to *Epilobium ;* (2 common to other countries) ; 7 to *Ludwigia ;* 5 to *Jussieua ;* and 1 to *Vanhallia.* The Epilobiums are all Himalayan ; the rest tropical.—Properties nearly unknown.

Oenothera, L. (*DC. pr.* 3, *p.* 45.) *Evening Primrose.*

1. *biennis*, Lindl. (*B. Reg.* 19, *t.* 1604.) ♂ N. America. Fl. large, bright, yellow, Febr. and March ; fr. H. S.
   α. *biennis*, L. (*DC. l. c. p.* 46. ;—*E. B.* 22, *t.* 1534 ;—*J. Grah. Cat. B. pl. p.* 75.) Root edible. Cultivated.
   β. *grandiflora*, Ait. (*DC. l. c.* ;—*B. M.* 46, *t.* 2068. ;—*B. Reg.* 19, *t.* 1604. ;—*J. Grah. Cat. B. pl. p.* 75. ;—*Roxb. H. B. p.* 28. O. suaveolens, *Desf.*—*DC. l. c.*)

γ. *muricata*, (Oenothera muricata, *L. DC. o. c. p.* 47.)

2. *Simsiana*, Ser. (*DC. pr.* 3, *p.* 47.—O. corymbosa, *Sims.*—*B. M.* 45, *t.* 1974; not Lam.) ♂. Mexico. Fl. large, deep yellow, Feb. and March; fr. H. S.

3. *longiflora*, Jacq. (*DC. pr.* 3, *p.* 47;—*B. M.* 11, *t.* 365;—*Roxb. H. B. p.* 28.) ♂. Buenos Ayres. Fl. large, pale yellow, Feb. and March; fr. H. S.

4. *sinuata*, Michx. (*DC. pr.* 3, *p.* 48;—*Roxb. H. B. p.* 28.) ⊙ Fl. small, yellow, January, February, and March; fr. H. S.

5. *purpurea*, Curt. (*B. M.* 10, *t.* 352;—*DC. pr.* 3, *p.* 49.) ⊙ N. America. Fl. large, purple, March; fr. H. S.

6. *Romanzowii*, Ledeb. (*DC. pr.* 3, *p.* 49;—*B. Reg.* 7, *t.* 562.) ⊙ N. America. Fl. large, violet, Feb. and March; fr. H. S.

7. *Lindleyi*, Dougl. (*B. M.* 55, *t.* 2832.) ⊙ Western part of N. America. Fl. largish, purple spotted on a lilac ground, Feb. and March; fr. H. S.

8. *tetraptera*, Cav. (*DC. pr.* 3, *p.* 50;—*Roxb. H. B. p.* 28;—*B. M.* 13, *t.* 468.) ♃. New Spain. Fl. large, white-rose, nearly the whole year; fr. C. S.

9. *fruticosa*, Hook. (*B. M.* 64, *t.* 3545.) ♃. N. America. Fl. large, yellow, C. S. and Feb.; fr. H. S.

α. *vera*, (O. fruticosa, *L.*)

β. *ambigua*, (*B. M.* 64, *t.* 3545.—O. ambigua, *Spr.*;—*DC. pr.* 3, *p.* 50.—O. canadensis, *Goldie*;—*DC. o. c. p.* 52.)

γ. *Phyllopus*, (O. fruticosa, *Curt.*;—*B. M.* 10, *t.* 332; not L.—O. serotina, *Swt.*;—*B. Reg.* 22, *t.* 1840.)

δ. *incana*, (O. incana, *Nutt.*;—*DC. pr.* 3, *p.* 52.)

ε. *Fraseri*, (O. Fraseri, *Pursh.*;—*DC. o. c. p.* 51.;—*B. M.* 40, *t.* 1674.)

10. *rosea*, Ait. (*DC. pr.* 3, *p.* 51;—*B. M.* 10, *t.* 347.) ♃. Mexico. Fl. small, rose-coloured,—and fr. nearly throughout the year.

CLARKIA, Pursh. (*DC. pr.* 3, *p.* 52.)

1. *pulchella*, Pursh. (*DC. l. c.*;—*B. Reg.* 13, *t.* 1100;—*B. M.* 56, *t.* 2918.) ⊙ California. Fl. largish, deep-rose, March.

2. *elegans*, Dougl. (*B. Reg.* 19, *t.* 1575;—*B. M.* 64, *t.* 3592.) ⊙ California. Fl. largish, rose-purple, March.

JUSSIEUA, L. (*DC. pr.* 3, *p.* 52;—*W. and A. pr.* 1, *p.* 335.)

1. *repens*, L. (*DC. o. c. p.* 54;—*W. and A. l. c.*;—*Roxb. fl. ind.* 2, *p.* 401;—*J. Grah. Cat. B. pl. p.* 75;—*Rheed.* 2, *t.* 51.) কেসারাদাম *Kesara-dam.* ⊙ ~ Cochin China, Java, both Peninsulas of India, Bengal, (Serampore,) &c. Fl. largish, reddish-white, R. S.; fr. C. S.

2. *villosa*, Lam. (*DC. pr.* 3, *p.* 57;—*W. and A. pr.* 1, *p.* 336;—*J. Grah. Cat. B. pl. p.* 75.—J. exaltata, *Roxb. fl. ind.* 2, *p.* 401;—*Rheed.* 2, *t.* 50.) লালবোনলঙ্কা *Lal-bunlunga.* ♃. Cochin China, both Peninsulas of India, Bengal, (Serampore,) Monghir. Fl. largish, yellow, R. S.; fr. C. S.

LUDWIGIA, Roxb. (*DC. pr.* 3, *p.* 58;—*W. and A. pr.* 1, *p.* 336.)

1. *parviflora.* Roxb. (*Fl. ind.* 1, *p.* 419; *ed. Carey,* 1, *p.* 440;—*DC. pr.* 3, *p.* 59;—*W. and A. l. c.*;—*Wight. ill.* 2, *t.* 101;—*J. Grah. Cat. B. pl. p.* 75;—*Rheed.* 2, *t.* 49.) বনলবঙ্গ *Bun-lubunga.* ⊙ Both Peninsulas of India. Bengal, (Serampore.) Fl. small, yellow, and fr. R. S.
2. *prostrata,* Roxb. (*Fl. ind.* 1, *p.* 420; *ed. Carey,* 1, *p.* 441;—*DC. pr.* 3, *p.* 59.) ⊙ Pegu. Fl. very small, yellow, and fr. R. S. (Roxb.)

LOPEZIA, Cav. (*DC. pr.* 1, *p.* 62.)

1. *racemosa,* Cav. (*DC. l. c.*;—*B. M.* 8, *t.* 254;—L. cordata, *Horn*;—*DC. l. c.*—L. coronata, Andr.;—*B. Repos.* 8, *t.* 551;—*DC. l. c.*—L. oppositifolia, *Lag.*;—*DC. l. c.*) ⊙ Mexico, New Spain. Fl. small, deep rose-coloured, Feb. and March; fr. April.

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* *Sphærostigma cheiranthifolium,* Ser. (Oenothera cheiranthifolia, Horn; B. R. 12, t. 1040.) ⊙ Chili. *Oenothera cespitosa,* Sims. B. M. 39, t. 1593. ♃. N. America. *O. macrocarpa,* Pursh. (O. missouriensis, Sims.; B. M. 39, t. 1592.) ♃. N. America. *O. glauca,* Michx.; B. Reg. 18, t. 1511. ♃. N. America. *O. mollissima,* L. ⊙ Buenos Ayres. *O. odorata,* Jacq.; B. M. 50, t. 2403. ♂ S. America. *O. tenella,* Cav.; B. M. 50, 2424. ⊙ Chili. *O. viminea,* Dougl.; B. Reg. 15, t. 1220. ⊙ California. *O. decumbens,* Dougl.; B. Reg. 15, t. 1221. ⊙ California. *O. roseo-alba,* Bernh. ⊙ N. America. *O. Drummondi,* Hook.; B. M. 61, t. 3361. Texas. *O. quadrivulnera,* Dougl.; B. Reg. 13, t. 1119. ⊙ N. America. *O. bifrons,* Lindl.; B. Reg. 17, t. 1405. ⊙ Hybrid. *O. densiflora,* Lindl.; B. Reg. 19, t. 1593. ⊙ N. America. *O. humifusa,* Nutt.; B. Reg. 22, t. 1829. ⊙ N. America.—*Godetia lepida,* Spach.; B. Reg. 22, t. 1849. ⊙ California. *G. vinosa,* Spach.; B. Reg. 22, t. 1880. ⊙ California. *Clarkia rhomboïdea,* Dougl.; B. Reg. 23, t. 1981. ⊙ California. *Eucharidium concinnum,* F. and M.; B. Reg. 23. t. 1962. ⊙ California. —*Gaura tripetala,* Cav. ⊙ Mexico. *G. mutabilis,* Cav. (Oenothera anomala, Cart.; B. M. 11, t. 388.) ♃. New Spain. *G. parviflora,* Dougl.; B. M. 63, t, 3506. Texas. *Jussieua ovalifolia,* Sims.; B. M. 52, t. 2530. ♃. Madagascar.

SUB-ORDER.—TRAPEÆ, (HYDROCARYES, Link.; Lindl. Nat. Syst. p. 36.)

THE WATER-NUT TRIBE.

Floating plants, of 1 genus, and 5 species: 1 from Europe and Siberia; 3 from the E. Indies; and 1 from China.

TRAPA, L. (*DC. pr.* 3, *p.* 63;—*W. and A. pr.* 1, *p.* 337.) *Water Caltrops.*

1. *bispinosa*, L. (*DC. o. c. p.* 64;—*W. and A. l. c.*;—*Roxb. Corom.* 3, *t.* 234; *fl. ind.* 1, *p.* 428; *ed. Carey*, 1, *p.* 449;—*J. Grah. Cat. B. pl. p.* 75;—*Rheed.* 11, *t.* 33.) পানীফল *Panee-phul.* সিঙ্গারা *Singara.* ⊙ Both Peninsulas of India, Bengal, (Serampore,) Nepal. Fl. smallish, white, May and June; fr. C. S.—*Fruit* sold in the bazar, and eaten by the Natives. In Guzerat it forms an important article of food. During the *Hooly* festival a red dye is made of it, mixed with a yellow dye procured from the flowers of Butea frondosa, Roxb.
2. *quadrispinosa*, Roxb. (*Fl. ind.* 1, *p.* 430; *ed. Carey*, 1, *p.* 451.) ⊙ Silhet. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*) The *Kernels* of this species are also eaten by the Natives.

SUB-ORDER.—HALORAGEÆ, R. Br.—Lindl. Nat. Syst. p. 37.

Herbaceous, or more rarely shrubby plants, generally growing in damp places, ditches, and stagnant waters, occasionally on hills, of 10 genera, comprising 36 species: 7 N. American; 3 S. American; 2 European; 8 from New Holland and the South Sea Islands; 1 from Australasia; 2 from China and Japan; 1 from Bourbon; 2 from S. Africa; and 7 from India. Of the latter, 4 belong to *Myriophyllum;* 1 to *Haloragis;* and 2 to *Serpicula.*—We are not acquainted with the distribution of Mejonectes, R. Br.; Riesenbachia, Presl., and Gongylocarpus, Schlecht.—Properties unimportant.

MYRIOPHYLLUM, L. (*DC. pr.* 3, *p.* 68;—*W. and A. pr.* 1, *p.* 338.) *Water-Milfoil.*

1. *verticillatum*, L. (*DC. l. c.*;—*Roxb. H. B. p.* 12;—*E. B.* 4, *t.* 218.) ⊙ Europe, N. America, Bengal, (Serampore.) Fl. small, yellow, R. and C. S.; fr. C. S.
2. *indicum*, Willd. (*DC. l. c.*;—*W. and A. pr.* 1, *p.* 339.) ⊙ Ceylon, Coromandel, Bengal, (Serampore.) Fl. minute, R. S.; fr. C. S.
3. *tetrandrum*, Roxb. (*Fl. ind.* 1, *p.* 451; *ed. Carey*, 1, *p.* 470;—*DC. pr.* 3, *p.* 69;—*J. Grah. Cat. B. pl. p.* 76.) ⊙ Peninsula of India, Bengal, (Serampore.) Fl. minute, white, R. S.; fr. C. S.
4. *tuberculatum*, Roxb. (*Fl. ind.* 1, *p.* 451; *ed. Carey*, 1, *p.* 471.) ⊙ Bengal, (Serampore.) Fl. minute, bright red, R. and C. S.; fr. C. S.

ORDER XX.—COMBRETACEÆ, R. Br.—Lindl. Nat. Syst. p. 38.

THE MYROBALAN TRIBE.

Trees or shrubs, simple or climbing, of 22 genera, and about 140 species: 44 inhabiting S. America, Mexico, and the W. Indies; 6 Senegal;

15 Guinea ; 2 S. Africa ; 4 Madagascar ; 2 Bourbon and Mauritius ; 1 the Society Islands ; 2 China ; and 64 the E. Indies. Of the latter, 23 belong to *Terminalia ;* 25 to *Combretum ;* 2 to *Poivrea ;* 2 to *Getonia ;* 2 to *Quisqualis ;* 4 to *Anogeissus ;* 2 to *Lumnitzera ;* 1 to *Bobua ;* 1 *to Sphalanthus ;* 1 to *Ceratostachys ;* and 1 to *Agatisanthes.*

Astringency seems to be the chief characteristic of the order. Bucida Buceras, L. yields a bark, in the W. Indies employed for tanning. The same is the case in Brazil with the bark of Laguncularia racemosa, Gärtn. The seeds of a species of this tribe are recommended as an efficacious vermifuge by Dr. Oxley of Malacca, who gives them pounded and mixed with a little jam or honey. " The dose," says he, " may be as large as you can get a child to take ; but I believe four or five good nuts are sufficient. The natives sometimes eat them by handfuls, so they are perfectly harmless. I have known one dose discharge, without any other medicine given after it, twenty-nine lumbrici." (*Trans. med. and phys. soc. Calcutta, vol.* 7, *p.* 489.) Dr. Wallich who only saw the fruit, referred it to Quisqualis indica, L. To judge from a flowering branch, lately received from Dr. Oxley, of the plant in question, it is, however, a species of Combretum.

Terminalia, L. (*DC. pr.* 3, *p.* 10 ;—*W. and A. pr.* 1, *p.* 312.)

1. *angustifolia,* Jacq. (*DC. o. c. p.* 11 ;—*W. and A. l. c. ;—J. Grah. Cat. B. pl. p.* 69 :—T. Benzoin, L.—Catappa Benzoin, *Gärtn. fr.* 2, *t.* 127.) ♄. Peninsula of India. Fl. small, green, odoriferous, March and April. A milky juice flows out from this tree, which being fragrant on drying and resembling *Benzoin,* is used in Churches at the Mauritius as a kind of incense. (*Royle.*) *Fruit* used like that of T. Chebula.
2. *Catappa,* L. (*DC. pr.* 3, *p.* 11 ;—*W. and A. pr.* 1, *p.* 313 ;—*Roxb. fl. ind.* 2, *p.* 430 ;—*J. Grah. Cat. B. pl. p.* 69 ;—*B. M.* 57, *t.* 3004 ;—*Wight. icon.* 1, *t.* 172.—T. moluccana, Lam.—*DC. l. c.* not Roxb.—*Rheed.* 4, *t.* 3-4 ;—*Rumph.* 1, *t.* 68.) বাদাম *Badam. Country Almond tree.* L. ♄ Moluccas. Both Peninsulas of India, Bengal, (Serampore.) Fl. small, purplish-green, H. S ; fr. R. S.—*Wood* good. Kernels (*Country Almonds*) palatable.
3. *procera,* Roxb. (*Corom.* 3, *t.* 244 ;—*fl. ind.* 2, *p.* 429 ;—*DC. pr.* 3, *p.* 12.) L. ♄ Andaman Islands. Fl. small, white. In H. C. G., fl. Feb. and March ; fr. R. S. (*Roxb.*)
4. *bialata,* Wall. (*Rept.*—Pentaptera bialata, *Roxb. fl. ind.* 2, *p.* 441 ;—*DC. pr.* 3, *p.* 15.) L. ♄ Mountainous parts of India. Fl. small, greenish-yellow. In H. C. G. fl, H. S. ; fr. Jan. and Feb.
5. *Bellerica,* Roxb. (*Corom.* 2, *t.* 198 ;—*fl. ind.* 2, *p.* 431 ;—*DC. pr.* 3, *p.* 12 ;—*W. and A. pr.* 1, *p.* 313 ;—*Wight. ill.* 1, *t.* 91 ;—*J. Grah. Cat. B. pl. p.* 69 ;—*Rheed.* 4, *t.* 10.) বহরা *Buhura,* L. ♄ Peninsula of India, Goalparrah, Sukanaghur, Goruckpur, Dhomtola, Morung Mountains. Fl. small, greyish-green, offensively smelling, H. S. ; fr. C. S.—*Wood* white, softish, durable, (*Roxb.*) *Bark,* when wounded, gives

out a large quantity of an insipid gum, resembling *Gum arabic.* Fruit (*Beleric myrobalans*) astringent, tonic. *Kernels,* tasting like filberts, eaten by the natives, and held to be intoxicating, when eaten in abundance. (*Roxb.*)

6. *moluccana,* Roxb. (*Fl. ind.* 2, *p.* 432; non Lam.) ♄ Khassya Mountains, Assam, &c. Fl. small, dull yellowish brown, unpleasantly smelling. In H. C. G. fl. April and May; fr. March. α, *macrocarpa,* largish-fruited; β, *microcarpa,* small-fruited. Both kinds of *fruit* sold in the bazar under the name of বহরা (Buhura.)

7. *Chebula,* Retz. (*DC. pr.* 3, *p.* 12;—*W. and A. pr.* 1, *p.* 313;—*Roxb. Corom.* 2, *t.* 197;—*fl. ind.* 2, *p.* 435;—*J. Grah. Cat. B. pl. p.* 69.) হারীতকী *Hareetukee,* L. ♄ Both Peninsulas of India, Bengal, Monghir up to Lower Nepal. Fl. small, whitish, offensively smelling, H. S.; fr. Jan. and Feb.—Fruit, as well as the galls of this species, very astringent and much used by dyers. With alum they give a durable yellow, used on the Coromandel Coast by Chintz-painters, and with ferruginous mud an excellent black, employed by harness-makers for preparing ink, &c. (*Ainslie. Roxb.*) Unripe fruit, according to age, known under the name of *black, yellow* and *chebulic myrobalans,* and thought to be gently laxative. (*Royle.*)

8. *citrina,* Roxb. (*Fl. ind.* 2, *p.* 435;—*DC. pr.* 3, *p.* 12.—Myrobalanus citrina, *Gärtn. fr.* 2, *p.* 91, *t.* 97.) L. ♄. Assam, Khassya Mountains, &c. Fl. small, yellowish. In H. C. G. fl. H. S.; fr. Jan. and Feb.—*Wood* very hard, shunned by insects. (*Roxb.*) *Fruit* used as that of T. Chebula.

9. *Fatræa,* DC. (*pr.* 3, *p.* 12.) ♄ Madagascar. Introduced in 1840.

10. *Berryi,* W. and A. (*pr.* 1, *p.* 314.—Pentaptera angustifolia, *Roxb. fl. ind.* 2, *p.* 437;—*J. Grah. Cat. B. pl. p.* 69;—*DC. pr.* 3, *p.* 15.) L. ♄. Peninsula of India. Balla-ghaut Mountains. Banks of the rivers Kalinadi and Gutpurba. In H. C. G. fl. April and May; fr. Dec. (*Roxb.*) *Timber* good.

11. *Arjuna,* W. and A. (*pr.* 1, *p.* 314, *ann.*—Pentaptera Arjuna, *Roxb. fl. ind.* 2, *p.* 438;—*DC. pr.* 3, *p.* 14;—*J. Grah. Cat. B. pl. p.* 69.) আর্জুনি *Arjooni,* L. ♄ Bengal, Jungles in the S. E. of Surat. Fl. small, greenish-white, April and May; fr. Dec.—*Timber* good.—*Bark* in great repute among the Natives as a tonic internally, and a vulnerary applied externally; it is sold by most Druggists. (*Dr. Gibson.*)

12. *crenulata,* W. and A. (*pr.* 1, *p.* 314.—Pentaptera crenulata, *Roxb. fl. ind.* 2, *p.* 438; not DC.) L. ♄ Coromandel. In H. C. G. fl. H. S.; fr. C. S. (Roxb.) *Timber* good.

13. *glabra,* W. and A. (*pr.* 1, *p.* 314.—Pentaptera glabra, *Roxb. fl. ind.* 2, *p.* 440;—*DC. pr.* 3, *p.* 15.—P. crenulata, DC. *l. c.*—P. obovata, *DC. o. c. p.* 14.) L. ♄ Peninsula of India, Monghir, Silhet, Rajmahl. In H. C. G. fl. H. S.; fr. C. S. (Roxb.) *Timber* good.

14. *tomentosa*, W. and A. (*pr.* 1, *p.* 314;—*Wight. icon.* 1, *t.* 195. Pentaptera tomentosa, *Roxb. fl. ind.* 2, *p.* 440;—*DC. pr.* 3, *p.* 14;—*J. Grah. Cat. B. pl. p.* 69.) আশান *Ashan.* পিয়াশাল *Piysahal*, L. ♄ Monghir, Rajmahl, Oude. Common on the Ghauts and in the Concans. Fl. small, greenish-white, April, May and June; fr. C. S. —*Timber* very valuable. Much used for making shafts of Gigs, and other things where toughness of fibre is required. (*Dr. Gibson.*) *Bark* astringent and dyeing black.

15. *coriacea*, W. and A. (*pr.* 1, *p.* 315.—Pentaptera coriacea, *Roxb. fl. ind.* 2, *p.* 438;—*DC. pr.* 3, *p.* 15.) L. ♄. Mountains of Coromandel. Fl. small, dull yellow. In H. C. G. fl. H. S; fr. C. S. (*Roxb.*) *Wood* strong, hard, heavy, made into solid wheels for buffalo carts. (*Dr. Berry.*)

16. *paniculata*, W. and A. (*pr.* 1, *p.* 315.—Pentaptera paniculata, *Roxb. fl. ind.* 2, *p.* 442;—*DC. pr.* 3, *p.* 14;—*J. Grah. Cat. B. pl. p.* 70.) L. ♄. Courtallum. Malabar. Vallies of the Concan Rivers near their sources. Abounding in the jungles, S. E. of Surat. (*J. Grah.*) Fl. small. In H. C. G. fl. Nov. and Dec.; fr. May and June. (*Roxb.*) *Timber* good.

17. *gangetica*, Roxb. (*fl. ind.* 2. *p.* 437. T. [by a mistake] bengalensis, *DC. pr.* 3, *p.* 12.) হুর *Hur.* ♄. Banks of the Ganges. In H. C. G. fl. H. S.; fr. C. S. *Fruit* used like chebulic myrobalans.—This tree is not alluded to in Wall. Cat., and is only mentioned in Royl. ill.

Getonia, Roxb. (*DC. pr.* 3, *p.* 15;—*W. and A. pr.* 1, *p.* 315.)

1. *nutans*, Roxb. (*fl. ind.* 2, *p.* 428;—*DC. l. c.*) ♄ ◡ Rajmahl. Fl. smallish, greenish, H. S.; fr. C. S.

Anogeissus, DC. (*pr.* 3, *p.* 16, under Conocarpus.—*Wall. Cat.*)

1. *latifolius*, Wall. (*Cat.*—Conocarpus latifolius, *Roxb. fl. ind.* 2, *p.* 442; —*DC. o. c. p.* 17;—*W. and A. pr.* 1, *p.* 316;—*J. Grah. Cat. B. pl. p.* 70;—*Royle. ill. t.* 45, *f.* 1.) L. ♄. Chillaune, Islamabad, Kennery jungles, Vallies of the Concan Rivers near their sources, Inland Deccan Hills, Deyra-Dhoon. Fl. small, pale greenish, Jan. and Feb.; fr. H. S. *Timber* good, durable, if kept dry. (*Roxb.*)

2. *acuminatus*, Wall. (*Cat.*—Conocarpus acuminatus, *Roxb. fl. ind.* 2, *p.* 443;—*DC. pr.* 3. *p.* 17;—*W. and A. pr.* 1, *p.* 316.) L. ♄. Nopalry. Fl. small, pale-greenish, C. S; fr. H. S. *Timber* good, durable, fit, like that of *No.* 1, for house-building. (*Roxb.*)

Poivrea, Commers. (*DC. pr.* 3, *p.* 17;—*W. and A. pr.* 1, *p.* 317.)

1. *Roxburghii*, DC. (*o. c. p.* 18;—*W. and A. l. c.* Combretum decandrum, *Roxb. Corom.* 1, *t.* 59;—*fl. ind.* 2, *p.* 232; not Jacq.) ♄ ◡ Mountains of Coromandel, Khassya Mountains, Nepal, Sirmore. Fl. small, pale greenish, C. S.; fr. R. S.

2. *pilosa*, W. and A. (*pr.* 1, *p.* 317, *annot.*—Combretum pilosum, *Roxb. fl. ind.* 2, *p.* 231.) ♄ ◡ Khassya Mountains, Assam. Fl. small, greenish-yellow, Feb. and March; fr. R. S.

3. *coccinea*, DC. (*pr.* 3, *p.* 18.—Cristaria coccinea, *Sonner.*—Combretum coccineum, *Lam.*—C. purpureum, *Vahl.*;—*Roxb. fl. ind.* 2, *p.* 233;—*B. Reg.* 5, *t.* 429;—*B. M.* 46, *t*, 2102.) ♄ ◡ Madagascar. Fl. smallish, crimson, C. S. but very rare; fr. 0.

COMBRETUM, Löfl. (*DC. pr.* 3. *p.* 18;—*W. and A. pr.* 1, *p.* 317.)

1. *ovalifolium*, Roxb. (*fl. ind.* 2, *p.* 226;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 70.) ♄ ◡ Tanjore, Elephanta, Jungly tracts of the Concan, Guzerat. Fl. small, yellowish-white. In H. C. G. fl. March and April; fr. R. S. (*Roxb.*)
2. *rotundifolium*, Roxb. (*fl. ind.* 2, *p.* 226;—not Rich.) ♄ ◡ Khassya Hills. Fl. small, pale yellow. In H. C. G.?
3. *costatum*, Roxb. (*fl. ind.* 2, *p.* 227.) ♄ ◡ Silhet. Fl. small, dull yellow. In H. C. G. fl. March and April. (*Roxb.*)
4. *acuminatum*, Roxb. (*fl. ind.* 2, *p.* 228.) ♄ ◡ Silhet. Fl. small, greenish-white, fragrant, Feb. and April; fr. July and Aug. (Roxb.)
5. *chinense*, Roxb. (*fl. ind.* 2. *p.* 230.) ♄ ◡ China. Fl. small, greenish, C. S; fr. R. S.
6. *extensum*, Roxb. (*fl. ind.* 2, *p.* 229.) ♄ ◡ Amboyna. Fl. small, greenish-white-reddish. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

LUMNITZERA, Wild. (*DC. pr.* 3, *p.* 22;—*W. and A. pr.* 1, *p.* 316;—not Jacq.)

1. *racemosa*, Willd. (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 70. Petaloma alternifolium, *Roxb. fl. ind.* 2, *p.* 372.—Bruguiera madagascariensis, *DC. pr.* 3, *p.* 23;—*Rheed.* 6. *t.* 37.) কৃপা *Kripa*, L. ♄ Madagascar. Both Peninsulas of India, Banks of salt-water creeks in S. Concan, Soonderboons. Fl. small, white. Lately introduced. *Wood* strong, durable, used for posts and other parts of the houses of the natives, but chiefly for fuel in Calcutta. (*Roxb.*)
2. *littorea*, (L. coccinea, *W. and A. pr.* 1, *p.* 316. *annot.*—Pyrrhanthus littoreus, *Jack, malay miscel.* 2, *p.* 57.) ♄ Pulo Dinding. Penang. Fl. small, crimson. Introduced into H. C. G. Fl.?

QUISQUALIS, Rumph. (*DC. pr.* 3, *p.* 22;—*W. and A. pr.* 1, *p.* 318.)

1. *indica*, L. (*DC. o. c. p.* 23;—*W. and A. l. c.*;—*Roxb. fl. ind.* 2, *p.* 427;—*J. Grah. Cat. B. pl. p.* 70;—*B. Reg.* 6, *t.* 492;—*B. M.* 46, *t.* 2033;—*Wight. ill.* 1, *t.* 92.—Q. pubescens, *Burm. ind. t.* 35. *f.* 2.—Q. glabra, *Burm. ind. t.* 28. *f.* 2;—*DC. l. c.*—Q. villosa, *Roxb. fl. ind.* 2, *p.* 426;—*DC. l. c.*;—*Rumph.* 5, *t.* 38.) ♄ ◡ Moluccas, Moulmein, Singapore, Malacca, Pegu, &c. Fl. large, white, then rose-coloured, at last deep red, sweet-scented, H. C.; fr. C. S. *Fruit* used against worms in Amboyna. (*Rumph.*)

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* *Bucida Buceras*, L. B. Reg. 11. t. 907. 5. W. Indies. (Olive Bark Tree) *Agathisanthes javanica*, Bl. ♄ Java ('Hirung')—*Terminalia mauritiana*, Lam. ♄ Bourbon, Mauritius. *T. Arbuscula*, Swz. 5 Jamaica, *T. Saja*, Buch. Morung—*Laguncularia racemosa*, Gärtn. ♄ Cayenne,

W. Indies.—*Guiera senegalensis*, Lam.—ħ Senegambia.—*Poivrea alternifolia* DC.—ħ Banks of Orinoco. (' *Bejuco de Guayca.*') *P. aculeata*, DC.—ħ Senegambia, *P. eriopetala*, DC.—ħ. St. Domingo.—*Combretum grandiflorum*, G. Don ; B. Reg. 19, t. 1631.—ħ ◡ Sierra Leona. A most splendid species. *C. comosum*, G. Don ; B. Reg. 14. t. 1165. ħ ◡ Sierra Leona.

ORDER XXI.—ALANGIACEÆ, Lindl. Nat. Syst. p. 39.

Common in S. India, whence they extend along the Malayan Peninsula to Cochin-China, northward along the forest-clad base of the Himalaya, (*Royle.*) Only the following 4 species have as yet been discovered.

ALANGIUM, Lam. (*DC. pr.* 3, *p.* 203 ;—*W. and A. pr.* 1, *p.* 325.)

1. *decapetalum*, Lam. (*DC. l. c.* ;—*W. and A. l. c.* ;—*J. Grah. Cat. B. pl. p.* 72 ;—*Wight. icon* 1, *t.* 194.—A. hexapetalum, *Roxb. fl. ind.* 2, *p.* 502 ; not Lam.—A. tomentosum, *Lam.*—*DC. o. c. p.* 204 ;—*Rheed.* 4, *t.* 17,) বাঘঅঙ্কড়া *Bagh-ankra.* ♄ Coromandel, Cochin, Bombay, Guzerat, Malay Peninsula, Cochin-China, Assam, Khassya Mountains, &c. up to the base of the Himalaya. Fl. middle sized, whitish-yellowish, fragrant, H. S. ; fr. R. S.—*Wood* beautiful, (*Roxb.*) *Fruit* edible, somewhat astringent.

STYLIDIUM, R. Br.

1. *begonifolium*, R. Br. (*S. chinense*, Lour.—Marlea begonifolia, *Roxb. Cor.* 3, *t.* 283 ;—*fl. ind.* 2, *p.* 261 ;—*DC. pr.* 4, *p.* 267 ;—*B. Reg.* 24. *t.* 61.) ♄ Assam, China, Khassya Hills, extending northwards beyond 30° of N. L. Fl. middle sized, white, with large yellow anthers, March and April ; fr. July and August. *Timber* employed by the natives in the construction of their houses. (*Roxb.*)
2. *barbatum*, R. Br. ♄ Khassya Hills.

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* *Alangium hexapetalum*, L. Wight. ill. 2, t. 96. ♄. S. India, spreading up the Western bank of the Ganges to Allahabad. Khassya Mountains.

ORDER XXII.—RHIZOPHORACÆ, Lindl. Nat. Syst. p. 40.

(*W. Griffith*, On the family of Rhizophoreæ ; in Trans. med. and phys. soc. Calcutta, vol. 8, p. 1—13. With a plate.—*Arnott ;* in Ann. of nat. hist. 1, p. 359—374, incl. and in Wight. ill. 1, p. 207—211.)

THE MANGROVE TRIBE.

Trees, rarely shrubs, natives of salt swamps and marshes of the tropics, where they root in the mud, forming dense, most unhealthy jungles down

to the very edge of the ocean. There are 6 genera, 26 species; 2 of these are common to several parts of the world (Rhizophora mucronata, Lam. and Ceriops Candollianus, Arn.) 6 are found in America; 1 in Madagascar; 1 in New Holland; 1 in China; and 15 in the E. Indies. Of the latter, 1 belongs to *Rhizophora;* 1 to *Ceriops;* 1 to *Kandelia;* 8 to *Bruguiera;* and 4 to *Carallia.*—Properties unimportant.

RHIZOPHORA, Lam. (*Arn. l. c.;—Wight. l. c. p.* 209.)

1. *mucronata*, Lam. (*Arn. l. c.;—DC. pr.* 3, *p.* 32;—*Wight. icon* 1, *t.* 238;—R. Mangle, *L. ? ex pte.—Roxb. fl. ind.* 2, *p.* 459;—R. Candelaria, *W. and A. pr.* 1, *p* 310, not DC.;—and excl. syn. Rheed. and Rumph.;—*J. Grah. Cat. B. pl. p.* 68.—R. macrorrhiza, *Griff. o. c. p.* 8.—) ভোরা *Bhora*, L. ♄ Mauritius, Madagascar, Ceylon, Java, Arabia Felix, Malabar, Soonderboons, &c. Fl. largish, white, sweet-scented. In H. C. G. fl. April and May; fr. C. S.—*Wood* dark reddish, hard and durable. (*Roxb.*)
2. *conjugata*, L. (*Arn. l. c.;—DC. pr.* 3, *p* 33;—*Roxb. H. B. p.* 36.—R. Candelaria, *DC. o. c. p.* 32;—*Griff. o. c. p.* 7.—*Rheed.* 6. *t.* 34;—*Rumph.* 3, *t.* 71-72.) ♄ Ceylon, Java, Malabar, Tenasserim, &c.—Fl. middle-sized, white, faintly scented. Introduced into H. C. G. in 1796, but had not fl. up to 1814.

CERIOPS, Arnott. (*Wight. ill. p.* 209.)

1. *Roxburghianus, Arn.* (*l. c.* Rhizophora decandra, *Roxb. H. B. p.* 36.—Bruguiera decandra, *Griff. o. c. p.* 10.) গরাণ *Goran.* ♄. Penang, Martaban, Tavoy, Soonderbuns.—Fl. small, greenish-white, H. S.; fr. C. S.

KANDELIA, W. and A. (*pr.* 1, *p.* 310.)

1. *Rheedii*, W. and A. (*l. c. Griff. o. c. p.* 9;—*Wight. ill. t.* 89.—Rhizophora Candel, *L.;—DC. pr.* 3, *p.* 32;—*Roxb. H. B. p.* 36;—*J. Grah. Cat. B. pl. p.* 68;—*Rheed.* 6, *t.* 35.) ♄, Malabar, Tenasserim, Soonderboons, &c. Fl. largish, white and green. Introduced into H. C. G. before 1814.—Fl. ?

BRUGUIERA, L'Herit. (*Arn. l. c.;—Wight. l. c.*)

1. *Rheedii*, Bl.? (*Arn. l. c.;—Wight. o. c. p.* 210;—*Wight. icon.* 1, *t.* 239. *A.*—B. gymnorrhiza, *Lam.;* (as to the flowers) *ill. t.* 397. *fig. a. b. c. and perhaps d. f.;—W. and A. pr.* 1, *p.* 311, partly—*Griff. o. c. p.* 10.—Rhizophora gymnorrhiza, *L.* partly;—*Roxb. fl. ind.* 2, *p.* 460;—*J. Grah. Cat. B. pl. p.* 68;—*Rheed.* 6, *t.* 31, 32;—*Rumph.* 3, *t.* 69, according to Bl. and consequently also Rhizophora? Palun, *DC. pr.* 3, *p.* 33.) কাকড়া *Kankra.* ♄ Cochin-China, Moluccas, Java, Tenasserim, Penang, &c. Soonderbuns. Malabar. Fl. largish, red. In H. C. G. fl. H. S. fr. C. S.—*Wood* hard, durable, yellowish. (*Roxb.*)
2. *parviflora*, W. and A. (*pr.* 1. *p.* 311, *annot.*;—*Griff. o. c. p.* 10;—*Arn. in Wight. ill.* 1, *p.* 210.—Rhizophora parviflora, *Rox. fl. ind.* 2. *p.* 461;—*J. Grah. Cat. B. pl. p* 68; excl. syn. DC. and Rumph.—*R.*

cylindrica, Roxb. H. B. p. 36.) ♄ Mergui, Soonderbuns, Salsette. Fl. small, greenish-yellow, somewhat scented, C. S.; fr. 0.

CARALLIA, Roxb. (*DC. pr.* 3, *p.* 33;—*W. and A.* 1, *p.* 311.)

1. *lucida,* Roxb. (*Corom.* 3, *t.* 211; *fl. ind.* 2, *p.* 481;—*DC. l. c.*;—*W. and A. o. c. p.* 312.—C. integerrima, *DC. l. c.*—C. integrifolia, *Grah. Cat. B. pl. p.* 68.) Malabar, Circars, Mergui, Chittagong, Silhet, Kemaon.—Fl. very small, greenish-white, nearly inodorous, Feb. and March; fr. 0. It is only the younger trees that have the leaves sharply serrulate; in old ones they are perfectly entire, and varying from oval to obovate, as well as in size.
2. *lanceæfolia,* Roxb. (*fl. ind.* 2, *p.* 481;—*DC. pr.* 3. *p.* 33.) ♄ Sumatra. Fl. small, greenish, Feb. and March; fr. 0.
3. *garcinifolia,* Wall, ♄ Khassya Hills.

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* *Cassipourea guianensis,* Aubl. ♄ Guiana.—*Richiæa madagascariensis,* Pet. Th. ♄ Madagascar.—*Rhizophora Mangle,* L. ♄ W. Indies.—*Ceriops Candollianus,* Arn. ♄. Quilon.—*Bruguiera gymnorrhiza,* Bl. Java, Moluccas.—*B. cylindrica,* Bl. Java.—*B. eriopetala,* W. and A.; Wight. icon. t. 239. B.—Quilon, Tenasserim.—*B. caryophylloïdes,* Bl. Singapore, Penang.—*B. malabarica.* Arn. Malabar.—*Carallia zeylanica,* Arn. Ceylon.

ORDER XXIII.—MEMECYLACEÆ.—Lindl. Nat. Syst. p. 40.

Fine shrubs, of 3 (5) genera, containing 36 species; 26 from the E. Indies; 3 from Mauritius and Bourbon; 1 from Madagascar: 2 from Brazil; 1 from Guiana; 1 from Mexico; 1 from the W. Indies; and 1, as to its native country, unknown. Of the E. Indian forms, 2 belong to *Scutula,* a genus nearly unknown; and 24 to *Memecylon.* Two of these have been found on the Khassya Mountains; the rest in the two Peninsulas of India, Ceylon, Java and Cochin-China. Memecylon grande, Retz. has been traced as far northwards as Monghir. We are unacquainted with Guildingia, Hook, and Fenzlia, Endl. Properties unimportant.

MEMECYLON, L. (*DC. pr.* 3, *p.* 5;—*W. and A. pr.* 1, *p.* 319.)

1. *ramiflorum,* Lam. (*DC. o. c. p.* 6;—*W. and A. l. c.*—M. tinctorium. *Kön.*—*W. and A. l. c*;—*Wight. ill. t.* 93;—*J. Grah. Cat. B. pl. p.* 71. excl. syn. Roxb.) ♄ Malay Peninsula, Coromandel, Mahableshwur, Kundalla and along the Ghauts, Silhet. Fl. small, blue, H. S. *Leaves* used in dyeng yellow.
2. *capitellatum,* L. (*DC. pr.* 3, *p.* 6.—M. edule, *Roxb. Corom.* 1, *t.* 82; *fl. ind.* 2, *p.* 260;—*DC. l. c.*) ♄ Ceylon, Coromandel, &c. Fl. small, blue, H. S.—Ripe *berries* astringent, eaten by the natives.

* *Memecylon Heyneanum*, Benth. ♄ Courtallum, Wight. icon. 1, t. 278.—*M. amplexicaule*, Roxb. Wight. icon. 1, t. 279. ♄ Travancore, Malabar, Penang, Singapore. *M. jambosioides*, Wight. icon. 1, t. 277. *M. cordatum*, Lam. ♄ Peninsula of India, Mauritius.—*Mouriria guianensis*, Aubl. ♄ Forests of Guiana. *M. myrtilloïdes*, Poir. ♄ Jamaica.

ORDER XXIV.—MELASTOMACEÆ, D. Don.—Lindl. Nat. Syst. p. 41.

Trees, shrubs, (rarely climbing,) or herbs, sometimes annual, in 1828, according to DC., under 69 genera amounting to 718 species; viz. 625 American; 18 African; 3 Chinese; and 72 E. Indian. According to Lindl. (*o. c. p.* 42-43,) the genera had, in 1836, risen to 93, containing, says Wight, at least 1000 species. The E. Indian forms, with the additions from Wallich's and Wight's herbaria, have now risen to 133; 2 of *Oxyspora;* 18 of *Sonerila;* 29 of *Osbeckia;* 1 of *Tristemma;* 72 of *Melastoma;* 1 of *Triplectrum;* 4 of *Pternandra;* 1 of *Medinilla;* 1 of *Sarcopyramis;* 1 of *Kibessia;* and 2 of *Astronia.* To these must, however, be added Blume's new genera: *Otanthera, Lachnopodium, Pogonanthera, Allomorphia, Pachysentria, Ochthocharis, Dissochæta, Aplectrum, Marumia, Creochiton, Phyllagathis*, and *Ewyckia.* The number of their species we have not been able to ascertain, but Wight says, that if the other genera are somewhat in proportion to Medinilla, of which Java produces 21 species, Blume must nearly have doubled the Indian list of Melastomaceæ.

Far the greater part of the Indian forms are tropical, but few extending towards the Khassya Mountains and the foot of the Himalayas in Nepal. These are Melastoma malabathricum, L.; M. normale, Don.; M. Wallichii, DC.; Oxyspora paniculata, DC.; Sonerila angustifolia, Roxb.; S. squarrosa, Wall.; S. tenera, R. Br.; S. arguta, R. Br.; S. maculata, Roxb.; Osbeckia angustifolia, Don.; O. nepalensis, Hook.; O. stellata, Don.; O. ternifolia, Don.; O. pulchella, Benth.; O. campestris, Buch.; O. longicollis and crinita, Benth.; O. nutans, Wall.; O. capitata, Benth.; Medinilla erythrophylla, Lindl.; and Sarcopyramis nepalensis and lanceolata, Wall.

The order, "though one of the most extensive known, is entirely destitute of any unwholesome properties." (Lindl.) Astringency is said to be its prevailing character.

MELASTOMA, Burm. (*DC. pr.* 3, *p.* 144;—*W. and A. pr.* 1, *p.* 324.)

1. *malabathricum*, L. (*DC. o. c. p.* 145;—*W. and A. l. c.*,—*Roxb. fl. ind.* 2, *p.* 405;—*J. Grah. Cat. B. pl. p.* 71;—*B. Reg.* 8, *t.* 672;—*Wight. ill.* 1, *t.* 95;—*Rheed.* 4, *t.* 42;—*Rumph.* 4, *t.* 72.) বড়ফুটিকা *Buro-phootika.* ♄ Moluccas, Sumatra, Cochin-China,

Malay Islands, Both Peninsulas of India, Orissa, Jellasore, Khassya Mountains, Nepal.—Fl. large, red; and fr. whole year. *Berries* dye black.

2. *amoenum*, Wall. (*Rept.*) Tenasserim.

OSBECKIA, L. (*DC. pr.* 3, *p.* 138;—*W. and A. pr.* 1, *p.* 322.)

1. *aspera*, Blum. (*W. and A. o. c. p.* 323;—*Wight. icon.* 2, *t.* 377.) Melastoma asperum, *L. DC. pr.* 3, *p.* 145;—*Roxb. H. B. p.* 33.) ছোটফুটিকা *Choto phootika.* ♄ Malabar, Travancore, Trincomalee, Bengal. In H. C. G., fl. C. S. (*Roxb.*)

ARTHROSTEMMA. Pav. (*DC. pr.* 3. *p.* 135.)

1. *lineatum*; D. Don. (*DC.* 3, *p.* 138.) ♄ Peru. C. S. 1840.

OXYSPORA, DC. (*pr.* 3, *p.* 123.)

1. *vagans*, Wall. (*Pl. as. rar. under* 1. *t.* 88.—Melastoma vagans, *Roxb. fl. ind.* 2, *p.* 404.) ♄ ◡ Chittagong, Khassya Mountains. Fl. small, bright red. In H. C. G. fl. May, June and July. (*Roxb.*)

MEDINILLA, Gaudich. (*DC. pr.* 3, *p.* 167.)

1. *erythrophylla*, Lindl. (*B. Reg.* 24. *app. p.* 85.—Melastoma? erythrophyllum, *Wall. MSS.*) ♄ Khassya Mountains. Has not fl. here.

SONERILA, Roxb. (*W. and A. pr.* 1, *p.* 321.)

1. *maculata*, Roxb. (*Fl. ind.* 1, *p.* 177; *ed. Carey*, 1, *p.* 180;—*W. and A. pr. l. c.*) ☌ Courtallum, Goalpara, Khassya Mountains, Nepal. Fl. red. In H. C. G. fl. R. S.; fr. C. S. (Roxb.)

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* *Arthrostemma versicolor*, DC.; B. M. 65, t. 3678. ♄ Brazil, near the sea. *A. nitidum*, Grah., B. M. 59, t. 3142. ♃. Buenos Ayres. —*Lasiandra Fontanesiana*, DC. (Melastoma granulosum, Desr.; B. M. 51, t. 2441.) ♄ Rio Janeiro. *L. argentea*, DC. (Rhexia holosericea, Bonpl.; B. Reg. 4, t. 423.) ♄. Rio Janeiro.—*Chætogastra gracilis*, DC.: B. M. 63, t. 3481. ♃. Rio Janeiro. *Melastoma macrocarpum*, Don. (M. malabathricum, Sims.; B. M. 15, t. 529.) ♄ China. *M. sanguineum*, Sims.; B. M. 48, t. 2241. ♄ Sunda. —*M. afzelianum*, Don. ♄. S. Leona.—*M. cymosum*, DC. (M. corymbosum, Sims.; B. M. 23, t. 904.) ♄. S. Leona.—*M. vimineum*, Don. (Rhexia viminea, Don.; B. Reg. 8, t. 664.) ♄. Brazil. *M. heteromallum*, Don.; B. Reg. 8, t. 644. ♄ Brazil. *M.? villosum*, Sims.; B. M. 53, t. 2630. ♄. S. America?—*Aciotis discolor*, Don. ♃. St. Vincent. *A. aquatica*, Don. ♄. Guiana. *Clidemia hirta*, Don. (Melastoma hirtum, L.; B. M. 45, t. 1971.) ♄. Jamaica. *C. elegans*, Don, ♄ Cayenne, Brazil. *C. spicata*, Don. ♄ Guiana. *C. agrestis*, Don. ♃. Banks of river Cayenne. *Tococa Aubletii*, Don. ♄ Guiana. *T. lanata*, Don. ♄ Trinidad. *Miconia grandifolia*, Don. ♄ Trinidad. *M. decussata*, Don. ♄ Guiana. *M. longifolia*, Don. ♄ Guiana. *M. purpurascens*, Don. ♄ Guiana, &c. *Oxyspora paniculata*, Wall. pl. as. rar. 1—88. ♄ Nepal. *Pternandra capitellata*, Jack. ♄ Penang, Singapore. *Sarcopyramis nepalensis*, Wall.

⊙ Nepal. *S. lanceolata*, Wall. Khassya Mountains. *Melostoma decemfidum*, Roxb. ♄ Penang, Singapore. *M. glaucum*, Jack. Penang. *M. fallax*, Jack. Penang. *Osbeckia pulchella*, Benth. (Melastoma pulchellum, Roxb.) ♄ Chittagong, Khassya Mountains. *O. nepalensis*, Hook. Khassya Mountains. *O. stellata*, Don. Nepal. *Sonerila moluccana*, Roxb. ♃. Penang. *S. grandiflora*, R. Br. Neelgherries, &c.

ORDER XXV.—MYRTACEÆ, R. Br.—Lindl. Nat. Syst. p. 43.

THE MYRTLE TRIBE.

Trees or shrubs, of 45 genera, amounting to 670 species, the greatest number of which belong to S. America, New Holland and the South Sea Islands and the E. Indies. The latter contain, according to our materials, about 131 forms; viz. 2 of *Melaleuca;* 3 of *Metrosideros*, (Roxb.); 1 of *Fabricia*, (Roxb.); 1 of *Bäckea;* 3 of *Sonneratia;* 1 of *Nelitris;* 1 of *Psidium;* 1 of *Jossinia?;* 1 of *Myrtus;* 1 of *Monoxera;* Wight, (Myrtus spectabilis, Bl.); 110 of *Eagenia*, (*Wight. ill.* 2, *p.* 13;) —, of *Rhodamnia;* 2 of *Glaphyria*, and 2 of *Myrtus?* Wall. Three have been found in Cochin-China, but are nearly unknown; 14 in Madagascar, Bourbon, Mauritius, and the Sechelles; 2 in Guinea and Senegal; 3 in S. Africa, (*Harvey*); and 1 (Myrtus communis, L.) in S. Europe.—Bäckea frutescens, L., a Chinese shrub has been discovered on Mount Ophir, near Malacca, by Dr. Oxley.

"The pellucid dotting of the leaves and other parts indicates the presence of a fragrant aromatic or pungent volatile oil, which gives the principal quality to the produce of the order." (*Lindl.*) The properties of the Indian Myrtaceæ will be adverted to under the different species.

TRISTANIA, R. Br. (*Hort. Kew. ed. alt.* 4, *p.* 417;—*DC. pr.* 3. *p.* 210.)

1. *megaphylla*, Cunningh. ♄ Australasia, C. S. 1839.

MELALEUCA, L. (*DC. pr.* 3, *p.* 211;—*W. and A. pr.* 1, *p.* 326.)

1. *Cajuputi*, Roxb. (*Fl. ind.* 3, *p.* 394;—*W. and A. l. c.*—M. minor *Sm.*;—*DC. o. c. p.* 212.) ♄ Moluccas, &c. Fl. small, white, especially C. S.—Yields the well-known *Cajuputi-oil.*
2. *Leucadendron*, L. (*DC. pr.* 3, *p.* 212;—*Roxb. fl. ind.* 3, *p.* 397;—*Rumph.* 2, *t.* 16.) ♄ Moluccas, Malacca. Fl. small, white, C. S.; fr. H. S.
3. *nodosum*, Sm. (*Exot. bot.*—*Ait. Hort Kew. ed. alt.* 4, 413.) N. Holland, December 1839.

CALLISTEMON, R. Br. (*DC. pr.* 3, *p.* 222.)

1. *linearis*, DC, (*l. c.*—Metrosideros linearis, *Sm.*;—*Roxb. fl. ind.* 2, *p.* 479.) ♄ N. Holland. Fl. small, greenish, April and May; fr. Feb. and March.

2. *lophanthus*, Swt. (*G. Don. Mill: dict.* 2, *p.* 822.—C. salignus, *Sims.*;—*B. M.* 43, *t.* 1821, not DC.) ♄ N. Holland. Has been introduced into H. C. G. Fl. ?

METROSIDEROS, Rumph. (*DC. pr.* 3, *p.* 224.)

1. *verus*, Rumph. (*Herb. amb.* 3, *t.* 7.—*DC. l. c.*;—*Roxb. fl. ind.* 2, *p.* 477.) ♄ Amboina, Java. Fl. small, white, H. and R. S.; fr. Sept. and Oct.

NELITRIS, Gärtn. (*DC. pr.* 3, *p.* 231.)

1. *paniculata*, Lindl. (*DC. l. c.*—N. polygama, *Spreng.*—Eugenia polygama, *Roxb. fl. ind.* 2, *p.* 491.) ♄. Penang. Has been introduced into H. C. G.?

PSIDIUM, L. (*DC. pr.* 3, *p.* 232;—*W. and A. pr.* 1, *p.* 328.) *Guava tree.*

1. *pumilum*, Vahl. (*DC. l. c.*;—*W. and A. l. c.*;—P. Cujavillus, *Burm. Rumph.* 1. *t.* 49.) ♄. Ceylon, Moluccas. Fl. middle-sized, white, fragrant, March; fr. R. S., delicious.
2. *pyriferum*, L. (*DC. pr.* 3, *p.* 333;—*W. and A. l. c.*;—*Roxb. fl. ind.* 2, *p.* 480;—*J. Grah. Cat. B. pl. p.* 72;—*B. Reg.* 13, *t.* 1079;—*Rheed.* 3, *t.* 34;—*Rumph.* 1, *t.* 47.) ♄ W. Indies, Tropical S. America. Domesticated in India. পেয়ারা *Peyara.* Fl. largish, white, sweetish scented, H. S.; fr. R. S.
3. *pomiferum*, L. (*DC. pr.* 3, *p.* 334;—*W. and A. pr.* 1, *p.* 328;—*Roxb. fl. ind.* 2. *p.* 480;—*J. Grah. Cat. B. pl. p.* 72;—*Rheed.* 3, *t.* 35;—*Rumph.* 1, *t.* 48.) লালপেয়ারা *Lal-peyara.* ♄ W. Indies, Mexico. Tropical S. America. Domesticated in India. Fl. largish, white, sweetish scented, H. S.; fr. R. S.
4. *guineense*, Swz. (*DC. pr.* 3, *p.* 235.) ♄ W. Indies, introduced, it is said, from Guinea. Fl. small, white, H. S.; fr. R. S. *Fruit* of a fine flavour, fulvous, red inside.
5. *polycarpon*, Lamb. (*DC. pr.* 3, *p.* 235;—*B. Reg.* 8, *t.* 653.) ♄ Trinidad.—Introduced into H. C. G.—Fl. ? *Fruit* about the size of a plum, yellow inside, of a delicate taste.

JOSSINIA, Commers. (*DC. pr.* 3, *p.* 337.)

1. *buxifolia*, (*DC. o. c. p.* 338.—Eugenia buxifolia, *Lam.*) ♄ Bourbon.—Introduced into H. C. G. Fl. ?

MYRTUS, L. (*DC. pr.* 3, *p.* 238;—*W. and A. pr.* 1, *p.* 328.)

1. *communis*, L. (*DC. o. c. p.* 239;—*Roxb. fl. ind.* 2, *p.* 497;—*J. Grah. Cat. B. pl. p.* 73.) *Common Myrtle.* বিলাতিমেন্দী Bilati-mendee. ♄ S. Europe. Common in gardens. Fl. smallish, white, fragrant, H. S.; fr. 0. Used as a hedge-plant in Egypt. (*Macullough.*) *Berries* eaten in Syria.
2. *tomentosa*, Ait. (*DC. pr.* 3, *p.* 240;—*W. and A. pr.* 1, *p.* 328;—*Roxb. fl. ind.* 2, *p.* 498;—*B. M.* 7, *t.* 250.—M. canescens, *Lour.*; *Roxb. l. c. excl. No.* 3.) ♄ China, Cochin-China, Neelgherries, Penang, Singapore. Fl large rose-coloured, with crimson filaments.—Introduced into H. C. G. in 1798; but had not fl. up to 1814. *Berries* eaten on the Neelgherries.

3. *melastomoïdes*, Cunningh. 5 Moreton Bay.

PIMENTA, Lindl. (*Loud. encycl. of plants*, *p.* 418, *No.* 1123.)

1. *vulgaris*, Lindl. (*Loud. enc. l. c. Wight. ill.* 2, *p.* 13.—Eugenia Pimenta, *DC. pr.* 3, *p.* 285, *a. longifolia.* Myrtus Pimenta, *L. a* longifolia, *Roxb. H. B. p.* 37; *B. M.* 30, *t.* 1236.) ♄ Jamaica, &c. Fl. small, white, March and April; fr. July and August. The dried *fruit* of this tree is imported into Europe from the W. Indies in large quantities, and sold in shops under the name of *Allspice* or *Jamaica Pepper*. *Leaves* aromatic.

2. *acris*. Wight. (*Ill.* 2, *p.* 13, Eugenia acris, *W. and A. pr.* 1, *p.* 331;—*J. Grah. Cat. B. pl. p.* 74.—E. Pimenta, *DC. pr.* 3, *p.* 285. β ovalifolia.—Myrtus Pimenta, *L.* β latifolia, *Roxb. H. B. p.* 37.—Myrcia acris, *DC. pr.* 3, *p.* 243;—*B. M.* 59, *t.* 3153.—M. pimentoides, *DC. l. c.*) ♄ Jamaica, &c. Fl. small, white, March and April; fr. July and August.—*Wild Cinnamon* or *Wild Clove-tree*. *Timber* hard, red and heavy, capable of being polished and used for mill-cogs and other purposes, where much friction is to be sustained. *Bark* brown, then ash-coloured, finally white, astringent, somewhat aromatic. *Leaves* sweetly aromatic, agreeably astringent, often used in sauce. *Berries* aromatic, agreeable for culinary purposes. (*Lunan. Hort. Jamaica.*)

EUGENIA, L. (*Wight. ill.* 2, *p.* 12.)

Sub-genus I.—*Eueugenia*, Wight. (*o. c. p.* 13.)

1. *bracteata*, Roxb. (*fl. ind.* 2, *p.* 490;—*DC. pr.* 3, *p.* 264;—*W. and A. pr.* 1, *p.* 331.—E. zeylanica, *Roxb. l. c.*, not Willd.) হিজলিমেন্দী *Hijolee-mendee.* ♄ Ceylon, Peninsula of India. Fl. as large as those of the common myrtle, white; and fr. throughout the year.

2. *Michelii*, Lam. (*DC. pr.* 3, *p.* 263.—Plinia pedunculata, *L. fil.*;—*B. M.* 14, *t.* 473.) ♄ Brazil. Fl. small, white, fragrant, H. S.; fr. R. S.

Sub-genus II.—*Jambosa*, DC. (*Wight. ill.* 2, *p.* 14.)

3. *Jambos*, L. (*Wight ill.* 2, *p.* 14, *t.* 435;—*Roxb. fl. ind.* 2, *p.* 494;—*B. M.* 41, *t.* 1696.—Jambosa vulgaris, *DC. pr.* 3, *p.* 286;—*W. and A. pr.* 1, *p.* 332;—*J. Grah. Cat. B. pl. p.* 74;—*B. M.* 61, *t.* 3356;—*Rheed.* 1, *t.* 17,) গোলাব জাম *Golab-jam. Rose apple.* ♄. Both Peninsulas of India, Bengal, Sirmore. Cultivated.—Fl. large; greenish-white, Feb.; fr. R. S.

4. *aquea*, Roxb. (*Wight. ill.* 2, *p.* 14;—*Roxb. Fl. ind.* 2, *p.* 492.—Jambosa aquea, *DC. pr.* 3, *p.* 288;—*W. and A. pr.* 1, *p.* 332;—*Wight. icon.* 1. *t.* 216;—*Rumph.* 1, *t.* 38. *f.* 2, *and t.* 39 ?) জামব *Jambo.* ♄ Moluccas. Cultivated. Fl. large, greenish-white, H. and R. S.; fr. R. S. *Fruit* somewhat aromatic.

α, rhodocarpa. Fruit rose-coloured.

β, leucocarpa. Fruit white.

5. *lanceæfolia*, Roxb. (*Fl. ind.* 2, *p.* 494.) L. ♄ Silhet. Fl. middle-sized, white, Nov.; fr. Feb.

6. *malaccensis*, L. (*Wight. ill.* 2, *p.* 14;—*Roxb. fl. ind.* 2, *p.* 483.—Jam-

bosa malaccensis, *DC. pr.* 3, *p.* 286 ;—*W. and A. pr.* 1, *p.* 332 ;—*J. Grah. Cat. B. pl. p.* 74.—J. purpurascens, *DC. l. c. excl. syn.* Roxb.—J. domestica, *DC. o. c. p.* 288.—*Rheed.* 1, *t.* 18 ;—*Rumph.* 1. *t.* 37, *and t.* 38, *f.* 1.) মালাকাআমরুল *Malaka-amrool.* ♄ Moluccas. Cultivated. Fl. large crimson, H. S.; fr. R. S.

7. *purpurea,* Roxb. (*Wight. ill.* 2, *p.* 14 ;—*Roxb. Fl. ind.* 2, *p.* 483.—Jambosa purpurea, *W. and A. pr.* 1, *p.* 333, *annot.*) ♄ Malay Islands. Fl. large, purple, H. S.; fr. R. S.

8. *ternifolia,* Roxb. (*Wight. ill.* 2, *p.* 14 ;—*Roxb. Fl. ind.* 2, *p.* 489.) L. ♄ Chittagong. Fl. large; white or red, April; fr. June and July.

9. *amplexicaulis,* Roxb. (*fl. ind.* 2, *p.* 483 ;—*Wight. ill.* 2, *p.* 14.—Jambosa amplexicaulis, *DC. pr.* 3, *p.* 287.) L. ♄ Chittagong. Fl. middle-sized, greenish-white. In H. C. G. fl. and fr. at different periods through the year. (*Roxb.*)

10. *alba,* Roxb. (*Fl. ind.* 2, *p.* 493 ;—*Wight. ill.* 2, *p.* 14.—Jambosa alba, *W. and A. pr.* 1, *p.* 332.— J. macrophylla, *DC. pr.* 2, *p.* 286. excl. syn. Lam. and Rumph.) আমরুল *Amrool.* 5 Malay Islands. Cultivated. Fl. largish, greenish-white, H. and R. S. ; fr. R. S.

11. *polypetala,* Wall. Cat. (*Wight. ill.* 2, *p.* 14.—E. angustifolia, *Roxb. fl. ind.* 2, *p.* 490 ; not Lam.) 5 Chittagong, Silhet.—In H. C. G. fl. H. S. ; fr. R. S.

12. *laurifolia,* Roxb. (*Fl. ind.* 2, *p.* 489 ;—*Wight. ill.* 2, *p.* 14.—Jambosa laurifolia, *DC. pr.* 3, *p.* 287.) 5 Native Place? Fl. white, H. S. ; fr. R. S.

Sub-genus III.—*Caryophyllus,* L. (*Wight. ill.* 2, *p.* 14.)

13. *caryophyllata,* Thunb. (*Roxb. fl. ind.* 2, *p.* 495.—Caryophyllus aromaticus, *L.;—DC. pr.* 3, *p.* 262 ;—*B. M.* 54, *t.* 2749-50.—Myrtus Caryophyllus, *Spreng ;—Rumph.* 2, *t.* 1, 2, 3.) লবঙ্গ *Luvunga. Clove-tree.* ♄ Moluccas. Cultivated in Ceylon, the Southern parts of India, the Malayan Peninsula, Mauritius, Bourbon, Cayenne, &c. In Royle's ill$^{ns.}$ it is said, that the Clove-tree grows freely in H. C. G.; this is a mistake. It has not only not flowered in lower Bengal, but can scarcely be kept alive throughout the year.

Sub-genus IV.—*Acmena, DC.* (*Wight. ill.* 2, *p.* 14.)

14, *claviflora,* Roxb. (*Fl. ind.* 2, *p.* 488 ;—*Wight. ill.* 2, *p.* 15.—Syzygium claviflorum, *Wall. Cat.*) L. ♄ Chittagong. In H. C. G. fl. Feb. and March; fr. May and June. (*Roxb.*)

15. *oblata,* Roxb. (*Fl. ind.* 2, *p.* 493 ;—*Wight. ill.* 2, *p.* 15.—Syzygium oblatum, *Wall. Cat.*) ♄ Chittagong. In H. C. G. fl. March ; fr. June and July. (*Roxb.*)

16. *pulchella,* Roxb. (*Fl. ind.* 2, *p.* 496.—Syzygium pulchellum, *Wall. Cat.*) ♄ Molucca Islands, Penang, Amherst, Tavoy, Moulmein. Fl. small, greenish white, March and April; fr. R. S.

Sub-genus V.—*Syzygium, Gärtn.* (*Wight. ill.* 2, *p.* 15.)

17. *myrtifolia,* Roxb. (*H. B.* (1814,) *p.* 37.—*Fl. ind.* 2, *p.* 490 ;—

Wight. ill. 2, *p.* 15, not DC. (1828.) Syzygium myrtifolium, *DC. pr.* 3, *p.* 261.) ♄ Sumatra, Singapore. Fl. very small, greenish-white, somewhat sweet-scented, March and April; fr. May and June.

18. *oleïna*, Wight. (*Ill.* 2, *p.* 15.—Syzygium oleïnum, *Wall. MSS.*) In H. C. G.

19. *Jambolana*, Lam. (*Wight. ill.* 2, *p.* 16;—*Roxb. fl. ind.* 2, *p.* 484.—Syzygium Jambolana, *DC. pr.* 3, *p.* 269.—*W. and A. pr.* 1, *p.* 329; —*J. Grah. Cat. B. pl. p.* 73.—S. caryophyllifolium, *DC. o. c. p.* 270. —Eugenia obtusifolia, *Roxb. o. c. p.* 485.—E. caryophyllifolia, *Lam. not Roxb.*;—*Rheed.* 5, *t.* 29;—*Rumph.* 1, *t.* 42.) কালজাম *Kalo-jam*, L. ♄ Moluccas, Peninsula of India, Bengal, (Serampore,) Kemaon, &c.—Fl. small, white, March; fr. July and August. *Wood* hard, close-grained, durable. *Bark* strongly astringent, dyes excellent durable browns of various shades, according to the corrosive employed or the strength of the decoction. *Fruit* subacid, astringent, eatable. (*Roxb.*)

20. *caryophyllifolia*, Roxb. (*fl. ind.* 2, *p.* 486; not Lam.) ছোটজাম *Chhoto-jam*. L. ♄ Bengal. (Serampore,) &c. Fl. small, white, March and April; fr. May and June. *Wood* whitish, strong, close-grained, hard and durable. (*Roxb.*) *Fruit* unpleasantly acid, astringent, not eaten by the natives.

21. *fruticosa*, Roxb. (*fl. ind.* 2, *p.* 487;—*Wight. ill.* 2, *p.* 16.—Syzygium fruticosum, *DC. pr.* 3, *p.* 260.) ♄ Chittagong. Fl. small, white, Dec.; fr. H. S.

22. *balsamea*, Wall. (*MSS.* 1836;—*Wight. ill.* 2, *p.* 16; not E. balsamica, Jacq.—Syzygium balsameum, *Wall. Cat.*) ♄ Assam. Fl. small, white, H. S.; fr. R. S.

23. *operculata*, Roxb. (*fl. ind.* 2, *p.* 486;—*Wight. ill.* 2, *p.* 16.—Syzygium nervosum, *DC. pr.* 3, *p.* 260.) ♄ Moluccas. Fl. very small, white, March and April; fr. May and June.

24. *tetragona*, Wight. (*Ill.* 2, *p.* 16.—Syzygium tetragonum, *Wall. Cat.*) ♄ Silhet. In H. C. G.

25. *rubens*, Roxb. (*fl. ind.* 2, *p.* 496;—*Wight. ill.* 2, *p.* 17.) L. ♄ Chittagong. In H. C. G. ?

26. *inophylla*, Roxb. (*fl. ind.* 2, *p.* 496;—*Wight. ill.* 2, *p.* 17.—Syzygium inophyllum, *DC. pr.* 3, *p.* 260.) ♄ Sumatra. In H. C. G. ?

27. *grandis*, Wight. (*Ill.* 2, *p.* 17.—E. cymosa, *Roxb. fl. ind.* 2, *p.* 462, not Lam.) L. ♄ Silhet. In H. C. G. fl. Dec. *Timber* very useful. (*Roxb.*)

28. *lonchophylla* (E. lanceolaria, *Roxb. fl. ind.* 2, *p.* 494; not E. lanceæfolia, Roxb.; nor lanceolata, Lam. nor lancea, Poir,) L. ♄ Silhet. In H. C. G. fl. April and May. (*Roxb.*)

29. *acuminata*, Roxb. (*H. B.* 1814, *p.* 37; *fl. ind.* 2, *p.* 492; not Link.) ♄ Moluccas.—In H. C. G. fl. March; fr. June and July. (*Roxb.*)

30. *brachiata*, Roxb. (*fl. ind.* 2, *p.* 488.) ♄ Moluccas. In H. C. G. fl. May ; fr. July. (*Roxb.*)

31. *venusta*, Roxb. (*fl. ind.* 2, *p.* 491.) ♄ Tippera. Introduced into H. C. G. before 1814. Fl.?

32. *macrocarpa*, Roxb. (*fl. ind.* 2, *p.* 497.) L. ♄ Chittagong. Introduced into H. C. G. in 1811. Fl.?

? Sonneratia, L. (*DC. pr.* 3, *p.* 231 ;—*W. and A. pr.* 1, *p.* 327.)

1. *acida*, DC. (*l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 2, *p.* 506 ;—*J. Grah. Cat. B. pl. p.* 72 ;—*Wight. icon.* 2, *t.* 340 ;—*Rheed.* 3, *t.* 40 ;—*Rumph.* 3, *t.* 74.) ওড়চাকা *Orchaka.* ♄ Soonderbuns, Martaban Rivers, Penang, Singapore, Malacca Straits, Salsette, Delta of the Indus, &c. Fl. large, purple.—In H. C G. fl. H. and R. S. ; fr. C. S. (Roxb.)—It is probably identical with the "*Tewar*," noticed by Dr. Heddle in his MSS. Report on Scinde, as being a better substitute for coal in Steamers, than any other kind of wood. The supply is stated to be inexhaustible in the Delta of the Indus. (*J. Grah. l. c.*)

2. *apetala*, Buch. (*DC. pr.* 3, *p.* 231 ;—*W. and A. pr.* 1, *p.* 327 ;—*Roxb. fl. ind.* 2, *p.* 506 ;—*J. Grah. Cat. B. pl. p.* 72.) কেওরা *Keora.* ♄ Soonderbuns, Bombay, &c.—In H. C. G. fl. H. S. (*Roxb.*)

? Punica, L. (*DC. pr.* 3, *p.* 3 ;—*W. and A. pr.* 1, *p.* 327.)

1. *Granatum*, L. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 2, *p.* 499 ;—*J. Grah. Cat. B. pl. p.* 72 ;—*B. M.* 43, *t.* 1832, *A. B.*;—*Wight. ill.* 2, *t.* 97.) ডালিম *Dalim.* আনার *Anar. Common Pomegranate Tree.* ♄ N. Africa. Cultivated in India. Fl. large, scarlet and fr. at different periods of the year.—The *roots* of this tree were already known in the time of Celsus as a remedy against worms, but have since 1804 performed such wonders in this respect, that they may almost be considered specific against *tape-worms ;* two ounces of the bark of the dried root, cut into pieces, are boiled in a pint and a half of water till half a pint remains, four table spoonsful of the strained decoction are then given (to grown-up persons) every half hour, till general discomfort is produced, when the worms soon appear.—To infants it has been found preferable to give, twice a day, half a tea spoonful of the expressed juice of the young roots, mixed with a table spoonful of curds (দই) and a little sugar, till the worm is expelled. The *flowers* and the *rind of the fruit* are tonic and astringent, and as well as a decoction of the bark of the root, used in dysenteric and other affections of the bowels. (*Trans. med. phys. soc. Calcutta, vol.* 1, *p.* 363-64. β, *flore pleno.* Flowers double.

2. *nana*, L. (*DC. pr.* 3, *p.* 4 ;—*B. M.* 17, *t.* 634.) ♄. W. Indies, Guiana. Fl. large, scarlet, nearly throughout the year.

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* *Melaleuca viridiflora*, Gärtn. ♄ Singapore. *Callistemon microstachys*, Lindl. ; B. Reg. ann. 1838, t. 7. ♄ N. Holl. *C. viridiflorus*,

Acc- 6123

DC. ♄ N. Holland. *C. speciosus*, DC. (Metrosideros speciosus, Sims.; B. M. 42, t. 1761.) ♄ N. Holland. *Bæckea frutescens*, L.; B. M. 55, t. 2802. ♄ China, Malacca. *Psidium Cattleyanum*, Sabine; B. M. 51, t. 2501. ♃ China, no doubt introduced from Brazil. *P. cordatum*, Sims. B. M. 43, t. 1779. ♃ Guadaloupe. *Jossinia mespiloïdes*, DC. ("*Bois de Péche marron.*" "*Bois de Nèfle a grandes feuilles.*") ♄ Bourbon. *J. lucida*, DC. ("*Bois de Cloux.*") ♃ Mauritius. *Myrcia punctata*, DC. ♄ St. Cruz. *M. coriacea*, DC. ♄ W. Indies. *Eugenia formosa*, Wall. pl. as. rar. 2, t. 108. ♄ Moulmein. *E. bifaria*, Colebr. Wall. pl. as. rar. 2, t. 161. Khassya Mountains. *E. disticha*, DC. (Myrtus disticha, Swz..; B. M. 22. t. 867.) ♄ Jamaica. *E. fragrans*, Willd. (Myrtus fragrans, Vahl.; B. M. 31, t. 1242.) ♄ Jamaica. *E. caryophyllæa*, Wight. ♄ Peninsula of India.

SUB-ORDER ?—BARRINGTONIEÆ, DC.—Lindl. Nat. Syst. p. 46.

With the exception of one perennial herb,—trees, of 7 genera, and 19 species: 9 S. American; 9 E. Indian; and 1 from the Mauritius. The latter forms the genus Fœtidia. Of the former, 7 belong to Gustavia; 1 to Catinga; and 1 to Coupoui; and of the E. Indian species, 5 are ranged under *Barringtonia*; 3 under *Careya*; and 1 under *Gustavia*.—Properties unimportant.

BARRINGTONIA, Forst. (*DC. pr.* 3, *p.* 288;—*W. and A. pr.* 1, *p.* 333.)

1. *speciosa*, L. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 2, *p.* 636;—*Rumph.* 3, *t.* 114,) L. ♄ Moluccas, Java, Penang, Singapore, &c. Fl. largish, deep rose-coloured, H. S. *Seeds*, mixed with bait, inebriate fish.
2. *racemosa*, Roxb. (*fl. ind.* 2, *p.* 634;—*DC. pr.* 3, *p.* 288;—*W. and A. pr.* 1, *p.* 333;—*J. Grah. Cat. B. pl. p.* 74;—*B. M.* 67, *t.* 3813;—*Wight. icon.* 1, *t.* 152;—*Rheed.* 4, *t.* 6.) Fl. largish, white, with a tinge of rose, May; fr. Nov. L. ♄ Soonderbuns, Coromandel, Penang, Concans, &c.
3. *acutangula*, Gärtn. (*W. and A. pr.* 1, *p.* 333;—*Roxb. fl. ind.* 2, *p.* 635;—*J. Grah. Cat. B. pl. p.* 74.—Stravadium rubrum and coccineum, *DC. pr.* 3, *p.* 289;—*Rheed.* 4, *t.* 7;—*Rumph.* 3, *t.* 116?) হিজল *Hijul*, L. ♄ Both Peninsulas of India, Bengal, (Serampore,) Morung, Saharunpore. Fl. smallish, reddish-white, with scarlet filaments, April and May; fr. C. S.

CAREYA, Roxb. (*DC. pr.* 3, *p.* 295;—*W. and A. pr.* 1, *p.* 334.)

1. *herbacea*, Roxb. (*DC. l. c.*;—*Roxb. Corom.* 3, *t.* 217;—*fl. ind.* 2, *p.* 638.) ভুঁইডালিম *Bhooi-dalim*. 4. Interior of Bengal. Fl. large, reddish greenish-white, Feb. and March; fr. June and July.

2. *sphærica*, Roxb. (*fl. ind.* 2, *p.* 636,) L. ♄. Mountains of Chittagong. Fl. large, greenish-white, with some deep red filaments, April; fr. July.
3. *arborea*, Roxb. (*Corom.* 3, *t.* 218; *fl. ind.* 2.*p.* 638;—*DC. pr.* 3, *p* 295; —*W. and A. pr.* 1, *p.* 334;—*J. Grah. Cat. B. pl. p.* 74;—*Wight. ill.* 2, *p.* 99 *and* 100;—*Rheed.* 3, *t.* 36.) Both Peninsulas of India, extending as far north as the Jumna, along the foot of the Himalayas. L. ♄ Fl. large, greenish-white, March; fr. July.

FŒTIDIA, Commers. (*DC. pr.* 3, *p.* 295.)

1. *mauritiana*, Lam. (*DC. l. c.*;—*J. Grah. Cat. B. pl. p.* 73.) ♄ Mauritius, where it is called "*bois puant.*" Fl. pale greenish, largish, with white filaments, fragrant, R. and C. S; fr. 0.

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* *Gustavia augusta*, L. ♄ Surinam. *G. speciosa*, DC. ♄ New Granada.

ORDER XXVI.—LECYTHIDACEÆ, Lindl. Nat. Syst. p. 46.

Large trees, of 6 genera, containing 27 species, all natives of the hottest parts of S. America, especially of Guiana and Brazil.

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* *Lecythis ollaria*, L. ♄ "The most gigantic tree in the ancient forests of Brazil." (Lindl.)—*L. minor*, Jacq. ♄ Carthagena. Fl. large, white, fragrant.—*Bertholletia excelsa*, H. and Bonpl. ♄ S. America; cultivated in Brazil and Guiana. "The well known Brazil nuts of the shops of London, are the seeds of this tree." (Lindl.)—*Couroupita guianensis*, Aubl. B. M. 59, t. 3158-9. This ever-flowering, most magnificent tree, a native of the forests near Cayenne, is cultivated successfully in St. Vincent. We have no tree in this country to rival its beauty.

ORDER XXVII.—PHILADELPHACEÆ, Lindl. Nat. Syst. p. 47.

THE SYRINGA TRIBE.

Deciduous shrubs, arranged under 3 genera, containing 18 species: 11 from N. America; 5 from the Himalayas; 1 from S. Europe, and 1 from Japan. The Indian forms are, 2 of *Philadelphus*, and 3 of *Deutzia*. Properties unknown.

PHILADELPHUS, L. (*DC. pr.* 3, *p.* 205.)

1. *coronarius*, L. (*DC. l. c.*;—*B. M.* 11, *t.* 391.) *Common Philadelphus; Mock Orange.* ♄ S. Europe. Fl. large, cream-coloured, fragrant; March; but only once.

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* *Decumaria barbarea*, L. ♄ S. Carolina.

ORDER XXVIII.—HAMAMELIACEÆ, Lindl. Nat. Syst. p. 48.

THE WITCH-HAZEL TRIBE.

Shrubs, seldomer trees, of seven genera, containing nine species: 2 N. American; 1 S. African; 1 from Madagascar; 1 Persian; 1 Chinese; 1 Japanese; and 2 from the Khassya Mountains and Upper Assam. The latter *Bucklandia populnea*, R. Br. and *Liquidambar cerasifolia*, Griff. (Sedgwickia cerasifolia, Wall. et. Griff.) Properties unknown.

BUCKLANDIA, R. Br. (*Wall. Cat.*;—*W. Griffith, As. Res.* 19, *pt.* 1, *p.* 94.)

1. *populnea*, R. B. (L. *c. Griff. l. c.*) L. ♄ Khassya Mountains, from Cherra Poonjee to Sururem. Fl. small, greenish. Has been introduced into H. C. G. Fl.?

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* *Hamamelis chinensis*, R. Br. ♄ Nankin, Chusan.—*Dicoryphe stipulacea*, Jaum. ♄ Madagascar.

ORDER XXIX.—CORNACEÆ, Lindl. Nat. Syst. p. 49.

THE DOGWOOD TRIBE.

Trees or shrubs, seldom herbs, of 6 genera and 28 species: 8 from N. America; 3 from Europe and N. Asia; 4 from Mexico; 2 from Japan; 1 from Guiana; 2 unknown, as to their native place; 3 from Nepal; and 5 from Java. Of the E. Indian forms, 2 belong to *Cornus*, 1 to *Benthamia*, and 2 to *Mastixia*. Properties of little importance.

AUKUBA, Kämpf. (*DC. pr.* 4, *p.* 274.)

1. *japonica*, Thunb. (*DC. l. c.*;—*B. M.* 30, *t.* 1197.) ♄. Japan.—Has not fl.

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* *Votomita guienensis*, Aubl. ♄. French Guiana.

ORDER XXX.—LORANTHACEÆ, Lindl. Nat. Syst. p. 49.

Parasitical undershrubs, arranged, according to Lindl., under 12 genera, and, as far as we can judge from DC. (*Pr.* 4. *p.* 277, *&c. with add.*), W. and A. (*Pr.* 1, *p.* 379, &c.) and Wight. (*Ill. p.* 67,) containing 338 species (upwards of 400, *Wight.*),—all referred by DC. to four genera. 186 species have been found in S. America, Mexico and the W. Indies; 103 in the E. Indies; 15 in S. Africa, (*Harvey*); 3 in Mauritius and Bourbon; 9 in New Holland and the South Sea Islands; 7 in Guinea and Senegal; 4 in N. America; 3 in Abyssinia; 2 in Europe; 2 in Japan; 1 in Madagascar; 1 near Tiflis; 1 in China; and 1 in Caramania. Of the Indian forms, 22 belong to *Viscum*; 78 to *Loranthus*; and 2 to *Schöpfia*, chiefly inha-

biting Java, the mountains of the two Peninsulas of India, the Khassya Mountains, and Nepal. A few only have been found in Lower Bengal, Ceylon, and Luzon. Properties nearly unknown.

Several species of Loranthus have been introduced into H. C. G. as well as here, but they have not succeeded.

LORANTHUS, L. (*DC. pr.* 4, *p.* 286 ;—*W. and A. pr.* 1, *p.* 381.)

1. *longiflorus*, Desr. (*DC. o. c. p.* 304 ;—*W. and A. o. c. p.* 384 ;—*Wight icon.* 1, *t.* 302 ;—*Roxb. fl. ind. ed. Carey*, 2, *p.* 217.—L. bicolor, *Roxb. Corom.* 2, *t.* 139 ;—*fl. ind.* 1, *p.* 548, and 2, *p.* 185 ; *ed. Carey*, 2, *p.* 205 ;—*DC. o. c. p.* 307 ;—*Rheed.* 10. *t.* 4.) বড়মন্দা *Buro-munda*. Parasitic. ♄ Peninsula of India, Bengal, (Serampore.) &c. Fl. large, greenish orange-scarlet, and fr. nearly throughout the year.
2. *globosus*, Roxb. (*fl. ind.* 1, *p.* 550, *and* 2, *p.* 187 ; *ed. Carey*, 2, *p.* 206 ;—*DC. pr.* 4, *p.* 297. excl. syn. Rheed.) ছোটমন্দা *Chhoto-munda*. Parasitic. ♄. Bengal. (Serampore.) Fl. small, greenish-orange, and fr. nearly the whole year.

ORDER XXXI.—CUCURBITACEÆ,—Juss. Lindl. Nat. Syst. p. 51 ; (partly) Wight. ill 2, p. 24—33.

THE GOURD TRIBE.

Annual or perennial, climbing or creeping herbs, rarely undershrubs, chiefly natives of hot countries in both hemispheres, ranged by Meisner under 35, by Endlicher under 28 genera. Of species, DC. (1828) assigns for S. America, Mexico and the W. Indies 40; for N. America 5 ; Europe 4 ; Egypt and Arabia 7 ; Senegal 2 ; Abyssinia 1 ; Tunis 1 ; Guinea 3 ; Mozambique 1 ; Astrachan 1 ; Persia 1 ; Levant 2 ; Canaries 3 ; China and Japan 5 ; and the Society Islands 1. The S. African forms amount to 15, (*Harvey*,) and those of unknown origin to as many. In the E. Indies have been discovered about 130 species ; viz. 1 of *Bryonopsis ;* 4 of *Achmandra ;* 1 of *Melothria ?* 1 of *Pilogyne ;* 2 of *Zehneria ;* 2 of *Karivia ;* 1-2 of *Mukia ;* 31 of *Bryonia ;* 2 of *Citrullus ;* 12 of *Momordica ;* 16 of *Luffa ;* 1 of *Benincasa ;* 1 of *Lagenaria ;* 25 of *Trichosanthes ;* 2 of *Gymnopetalum ;* 12 of *Cucummis ;* 4 of *Cucurbita ;* 1 of *Coccinia ;* 2 of *Sicyos ;* 1 of *Erythropalum ;* and 1 of *Herpetospermum*. To these must, however, be added about 20 species (including common forms), enumerated by Blume since 1828. DC. then assigned to this author 26, but Wight (*Ill.* 2, *p.* 26,) now informs us that Blume in all, enumerates 46 Javanese species ; thus increasing the E. Indian Cucurbitaceæ to 160. The generic distribution of his additions we are not acquainted with.

" Acrimony and drastic tendency pervade many species, the fruit of some of which" (f. ex. the Colocynth,) " afford cathartics of remarkable power, acting, in even small doses, with great energy on nearly the whole line of

the alimentary canal. This intensity of power is, however, of rare occurrence, though the property is found more or less active in every part of the plants, mildly in the roots of some, and the leaves and young shoots of others, but in greatest intensity in the pulp surrounding the seed. The seeds themselves do not partake of this property, being nearly all mild and oily. There is reason to believe that some at least, if not all of the edible sorts, owe their freedom from this property to cultivation, as some of them in their wild state are found to possess it in great intensity. The fruit of many of the species of Cucumis, are powerfully cathartic, among which C. Hardwickii and Pseudo-Colocynthis, Royl., may be mentioned as the chief ones, but even the common Cucumber, especially the less highly cultivated varieties of this country, are sometimes known to prove strongly aperient in susceptible constitutions. But of all those yet mentioned, none approach the *Elaterium* (Spirting Cucumber) in the concentrated virulence of this quality, a few grains of the pulp being known occasionally to bring on symptoms of poisoning. Notwithstanding these drawbacks this is certainly a most useful family of plants, owing to the great size of their fruit, and the large quantity of nutritious matter which the edible sorts afford, and which on that account are extensively cultivated in every part of India. Those unfit for food, supply many useful medicines; but even the best known ought to be used cautiously when not ameliorated in their qualities by cultivation." *Wight. ill.* 2, *p.* 26-27.

KARIVIA, Arn. (*Wight. ill.* 2, *p.* 30.)

1. *umbellata*, Arn. (*l. c.*—Bryonia umbellata, *Klein*;—*DC. pr.* 3, *p.* 305;—*W. and A. pr.* 1, *p.* 345;—*J. Grah. Cat. B. pl. p.* 78.—Momordica umbellata, *Roxb. fl. ind.* 3, *p.* 710;—*Rheed.* 8, *t.* 26.) রাখালসসা *Rakhalsusa.* ♃ ◡ Both Peninsulas of India, Bengal, (Serampore,) Khassya Mountains, Sirmore. Fl. small yellowish, R. and C. S; fr. C. S. The ripe and unripe *fruit*, as well as the boiled *roots* eaten by the Natives.

MUKIA, Arn. (*Wight. ill.* 2, *p.* 30.)

1. *scabrella*, Arn. (*Wight. l. c.*—Bryonia scabrella, L.;—*DC. pr.* 3, *p.* 306;—*W. and A. pr.* 1, *p.* 345;—*Wight. icon.* 2, *p.* 501;—*Roxb. fl. ind.* 3, *p.* 724;—*J. Grah. Cat. B. pl. p.* 78;—*Rheed.* 8, *t.* 13.) আগমকি *Agumuki.* ♃ ◡ Both Peninsulas of India, Bengal, (Serampore,) interior of the mountains of N. India. Fl. small, yellowish; and fr. throughout the year.

BRYONIA, L. (*Wight. ill.* 2, *p.* 30; from Schrader.)

1. *laciniosa*, L. (*DC. pr.* 3, *p.* 308;—*W. and A. pr.* 1, *p.* 345;—*Roxb. fl. ind.* 3, *p.* 728;—*Wight. icon.* 2, *t.* 500;—*J. Grah. Cat. B. pl. p.* 78;—*Rheed.* 8, *t.* 19) মালা *Mala.* ♃. ◡ Peninsula of India, Goalpara, Bengal, (Serampore,) Deyra Dhoon, Cashmere. Fl. small, yellowish-green; and fr. throughout the year.

CITRULLUS, Schrad. (*Wight. ill.* 2, *p.* 30.)

1. *Cucurbita*, Schrad. (Cucurbita Citrullus, *L.*;—*W. and A. pr.* 1, *p.*

351 ;—*Roxb. fl. ind.* 3, *p.* 719 ;—*J. Grah. Cat. B. pl. p.* 79.—Cucumis Citrullus, *Ser.* ; *DC. pr.* 3, *p.* 301 ;—*Rumph.* 5, *t.* 146, *f.* 1,) তরমজ *Turmuz. Water-Melon.* ⊙ Cultivated. Fl. large, yellowish, Jan. and Feb. ; fr. H. S.

2. *Colocynthis*, Schrad. (Cucumis Colocynthis, *L.* ;—*DC. pr.* 3, *p.* 302 ; —*W. and A. pr.* 1, *p.* 342 ;—*Wight. icon.* 2, *t.* 498 ;—*Roxb. fl. ind.* 3, *p.* 719 ;—*J. Grah. Cat. B. pl. p.* 77.) মাখাল *Makhal. Colocynth-plant.* ⊙ Peninsula of India, Banks of the Jumna, Kemaon, Japan. Fl. yellow, R. S. ; fr. C. S.

Momordica, L. (*Wight. ill.* 2, *p.* 30 ; from Schrader.)

1. *Charantia*, L. (*DC. pr.* 3. *p.* 311 ;—*W. and A. pr.* 1, *p.* 348 ;—*Roxb. fl. ind.* 3, *p.* 707 ;—*Wight. icon.* 2, *t.* 504 ;—*J. Grah. Cat. B. pl. p.* 78 ; *B. M.* 51, t. 3455 ;—*Rheed.* 8, *t.* 9 ;—*Rumph.* 5, *t.* 151.) করলা *Kurula.* ⊙◡ Cultivated in all the warmer parts of Asia. Fl. middle-sized, pale yellow, R. and C. S. ; fr. C. S. *Fruit* bitter, wholesome, while unripe eaten in curry by the Natives. It requires to be steeped in salt water, before it is cooked. (*Dr. Gibson.*)

   β. *muricata*, W. and A. (*pr.* 1, *p.* 348.—Momordica muricata, L. ;—*DC. pr.* 3, *p.* 311 ;—*Roxb. fl. ind.* 3, *p.* 707 ;—*Rheed.* 8, *t.* 10.) ঊছ্যা *Oochhya.* ⊙◡ Cultivated by the Natives even more than α. Fl. middle-sized, pale yellow, R. and C. S. ; fr. C. S. *Fruit* smaller than that of α, but more esteemed.

2. *dioeca*, Roxb. (*fl. ind.* 3, *p.* 709 ;—*DC. pr.* 3, *p.* 312 ;—*W. and A. pr.* 1, *p.* 348 ;—*J. Grah. Cat. B. pl. p.* 78. Female. *Wight. icon.* 2, *t.* 505 ;—*Rheed.* 8, *t.* 12. Male, *Wight. icon*, 2, *t.* 506 ;—*Rheed.* 8, *t.* 18.) ♀◡ Both Peninsulas of India, Bengal, (Serampore.) Fl. large, yellow, R. and C. S ; fr. C. S. Tender green *fruit* and tuberous *roots* of the female plant (weighing from 2-3 pounds,) eaten by the Natives.

3. *cochinchinensis*, Spreng. (*Syst.* 3, *p.* 14 ;—M. mixta, *Roxb. fl. ind.* 3, *p.* 709 ;—*W. and A. pr.* 1, *p.* 349.—Muricia cochinchinensis, *Lour.*) গোলকাঁকড়া *Golkankra.* ♀◡ Bengal, (Serampore.) Fl. large, cream-coloured, R. S. ; fr. C. S.

Luffa, Cav. (*Wight. ill.* 2, *p.* 31 ;—from Schrader.)

1. *pentandra*, Roxb. (*fl. ind.* 3, *p.* 712 ;—*W. and A. pr.* 1, *p.* 343 ;—*J. Grah. Cat. B. pl. p.* 77 ;—*Wight. icon.* 2, *t.* 499.—L. Catupicinna, *Ser.* ; *DC. pr.* 3, *p.* 303.—L. Petola, Ser. ; *DC.* l. *c.* ;—*Rheed.* 8, *t.* 8 ;—*Rumph.* 5, *t.* 147.) ধুন্দুল *Dhoondool*, Hind. *Porol.* ⊙ ◡ Cultivated all over India. Fl. large, yellow, R. and C. S. ; fr. C. S.—Unripe *fruit* eaten by the Natives.

   β, *amara*—Hind. *Tita porol* ; a wild variety.

2. *fætida*, *Cav.* (*DC. pr.* 3, *p.* 302 ;—*B.* M. 40, *t.* 1638.—L. acutangula, *Roxb. fl. ind.* 3, *p.* 713 ;—*DC. l. c.* ;—*W. and A. pr.* 1, *p.* 343 ;—*J. Grah. Cat. B. pl. p.* 77 ;—*Rheed.* 8, *t.* 7 ;—*Rumph.* 5, *t.* 149.) ঝিঙ্গা *Jhinga.* Hind. *Torooi.* ⊙◡ Cultivated. Fl. large, yellow,

R. and C. S.; fr. C. S.—The half-grown *fruit* is one of the best Native vegetables we have in India. The Natives use it much in their curries. Peeled, boiled and dressed with butter, pepper, and salt, it is little inferior to green peas. (*Roxb.*)

3. *amara*, Roxb. (*fl. ind.* 3, *p.* 715;—*W. and A. pr.* 1, *p.* 343;—*J. Grah. Cat. B. pl. p.* 77.—L. Plukenetiana, *Ser.*—*DC. pr.* 3, *p.* 302.) তিত ধুন্দুল *Tito-dhoondool.* Hind. *Kerula.* ⊙ ◡ Peninsula of India. Bengal, (Serampore.) Fl. large, yellow, R. S.; fr. C. S.—Bitter in every part. *Fruit* violently cathartic and emetic. *Juice* of the young roasted fruit applied by the Natives to their temples to cure headache. *Seeds* in substance or infusion, used as an emeto-cathartic. (*Roxb.*)

? 4. *clavata*, Roxb. (*fl. ind.* 3, *p.* 714.) ⊙◡ Hindoostan. Fl. large, yellow. In H. C. G. fl. R. and C. S.; fr. C. S.—The young unripe *fruit* eaten by the Natives in their curries, (*Roxb.*)

? 5. *graveolens*, Roxb. (*fl. ind.* 3, *p.* 716.) ⊙ Rajmahl.—In H. C. G. fl. R. S.; fr. C. S. The whole plant has a most disagreeable, heavy smell. (*Roxb.*)

BENINCASA, Savi. (*Wight. ill.* 2, *p.* 31;—from Schrader.)

1. *cerifera*, Savi. (*DC. pr.* 3, *p.* 303;—*W. and A. pr.* 1, *p.* 344;—*J. Grah. Cat. B. pl. p.* 77.—Cucurbita cerifera, Fisch.—C. Pepo, *Roxb. fl. ind.* 3, *p.* 718;—*Rheed.* 8, *t.* 3,) কুমড়া *Koomra. Pumpkin. White Gourd.* ⊙◡ Cultivated. Fl. large, yellow, R. S.; fr. C. S.—The young unripe *fruit* universally eaten by the Natives in their curries. (*Roxb.*)

LAGENARIA, Ser. (*Wight. ill.* 2, *p.* 31;—from Schrader.)

1. *vulgaris*, Ser. (*DC. pr.* 3, *p.* 299;—*W. and A. pr.* 1, *p.* 341;—*J. Grah. Cat. B. pl. p.* 76.—Cucurbita Lagenaria, *L.*; *Roxb. fl. ind.* 3, *p.* 718;—*Rheed.* 8, *t.* 1, 4, 5;—*Rumph.* 5, *t.* 144.) কদু *Kodoo.* লাউ *Laoo.—Bottle-Gourd. White Pumpkin.* ⊙ ◡ Cultivated. Fl. large, white, R. and C. S.; fr. C. S.—The hard rind of the fruit used as a bottle for containing honey, &c. (*Fukeer's bottles*); a variety of it for making the stringed instrument, called *sitar*; another variety as a *buoy* for swimming across rivers, transporting baggage, &c. (*Royle. J. Grah.*)—The fruit of a wild variety তিতলাউ *Tita-laoo,*) considered poisonous.

TRICHOSANTHES, L. (*Wight. ill.* 2, *p.* 31;—from Schrader.)

1. *anguina*, L. (*DC. pr.* 3, *p.* 314;—*W. and A. pr.* 1, *p.* 350;—*Roxb. fl. ind.* 3, *p.* 701;—*J. Grah. Cat. B. pl. p.* 78;—*B. M.* 19, *t.* 722;—*Rumph.* 5, *t.* 148.) চিচিঙ্গা *Chichinga. Snake-Gourd.* ⊙◡ Cultivated. Fl. large, white, R. S.; fr. C. S. *Fruit* universally eaten by the Natives.

2. *cucumerina*, L. (*DC. pr.* 3, *p.* 315;—*W. and A. pr.* 1, *p.* 350;—*Roxb. fl. ind.* 3, *p.* 702;—*J. Grah. Cat. B. pl. p.* 79;—*Rheed.* 8, *t.* 15.) বনপটোল *Bun-putol.* ⊙◡ Both Peninsulas of India. Bengal, (Serampore.) Fl. small, white, R. S. and C. S.—Unripe *fruit* very bitter, eaten by the Natives in their curries. (*Roxb.*)

3. *lobata*, Roxb. (*fl. ind.* 3, *p.* 703.) বনচিচিঙ্গা *Bun-chichinga.* ⊙◡ Bengal, (Serampore.) Fl. small, white, R. and C. S.; fr. C. S.—Not eaten by the Natives, though it appears to be a useful species. (*Roxb.*)
4. *dioeca*, Roxb. (*fl. ind.* 3, *p.* 701.) বনপটোল *Bun-putol.*—Hind. *Pul-wul.* ♃. ◡ Bengal, (Serampore.) Fl. large, white; and fr. R. S.—Much cultivated, on account of the unripe *fruit* and *tender tops*, which are eaten in curries, and reckoned very wholesome. (*Roxb.*)
5. *cordata*, Roxb. (*fl. ind.* 3, *p.* 703.) হুঁইকুমড়া *Bhooim-Koomra*;—(which is also the name of Batatas paniculatum, Choisy.) ♃. ◡ Banks of the Megna, where the inhabitants use the *root* as a substitute for Calumba-root. It has been sent to England as the real Calumba of Mozambique.—Fl. large, white. In H. C. G. fl. R. S. (*Roxb.*)
6. *bracteata*, (T. palmata, *Roxb. fl. ind.* 3, *p.* 704;—*W. and A. pr.* 1, *p.* 350;—*Wight. ill* 2, *t.* 104-5;—*J. Grah. Cat. B. pl. p.* 79.—Modecca bracteata, *Lam.*;—*DC. pr.* 3, *p.* 337.) বড়মাকাল *Buro-makal.* ♄◡ Both Peninsulas of India, Bengal, (Serampore,) Khassya Mountains, Deyra-Dhoon. Fl. large, white, R. S.; fr. C. S.—*Root* reckoned poisonous (*Roxb.*); with the *stem* much esteemed in diseases of cattle, as inflammation of the lungs, &c. (*Dr. Gibson.*)
7. *heteroclita*, Roxb. (*fl. ind.* 3, *p.* 705.) ♄ ◡ Silhet. Fl. large, pale yellowish-white; on the outside tinged with brown.—In H. C. G. fl. H. S.; fr. R. S. (*Roxb.*)

Cucumis, L. (*Wight. ill.* 2, *p.* 31;—from Schrader.)

1. *Melo*, L. (*DC. pr.* 3, *p.* 300;—*W. and A. pr.* 1, *p.* 341;—*Roxb. fl. ind.* 3, *p.* 720;—*J. Grah. Cat. B. pl. p.* 77.) খরবজ *Khur-buj. Melon.* ⊙ Persia, Kabul. Cultivated.—Fl. largish, yellow, and fr. H. S.
2. *Momordica*, Roxb. (*fl. ind.* 3, *p.* 725;—*W. and A. pr.* 1, *p.* 341;—*J. Grah. Cat. B. pl. p.* 77.) ফুঁটী *Phoontee.* ⊙ Cultivated. Fl. largish, yellow, Feb.; fr. H. S. *Fruit* much eaten; when young, a good substitute for the common cucumber; when ripe, (after bursting spontaneously) with a little sugar little inferior to the melon, and reckoned very wholesome. (*Roxb.*)—*Seed* now and then ground into a kind of meal. (*Royle.*)
3. *sativus*, L. (*DC. pr.* 3, *p.* 300;—*W. and A. pr.* 1, *p.* 342;—*Roxb. fl. ind.* 3, *p.* 720;—*J. Grah. Cat. B. pl. p.* 77.) সসা *Susa.* Hind. *Keera. Common Cucumber.* ⊙ ∽ Cultivated. Fl. largish, yellow; and fr. nearly throughout the year.
4. *utilissimus*, Roxb. (*fl. ind.* 3, *p.* 721;—*W. and A. pr.* 1, *p.* 342;—*J. Grah. Cat. B. pl. p.* 77.) কাঁকুড় *Kankoor.* Hind. *Kakni.* ⊙ Cultivated. Fl. largish, yellow, H. and R. S; fr. C. S.—*Fruit*, when half-grown, pickled; when ripe, as large as an ostrich-egg, melon-flavored, and, if hung up, keeping good for several months. *Seeds*, like those of other species of the Gourd-tribe, containing much farinaceous matter, mixed with a large proportion of mild oil. The *meal*

is an article of diet with the Natives, and the oil is used for the lamp. Powder of the *toasted seeds* diuretic, and serviceable in promoting the passage of gravel. (*Roxb.*)

5. *pubescens*, Willd. (*DC. pr.* 3, *p.* 301 ;—*W. and A. pr.* 1, *p.* 342 ;—*Wight. icon.* 2, *t.* 496 ;—*Royle ill. t.* 47. *f.* 1.—C. maderaspatanus, *Roxb. fl. ind.* 3, *p.* 723.) বনগমক *Bun-gumuk.* ⊙ ෴ Coromandel, Bengal, (Serampore,) Saharunpore, Delhi, &c. Fl. largish yellow, R. and C. S.; fr. C. S.—*Fruit* much esteemed by the Natives, though they do not cultivate the plant. (*Roxb.*) On ripening it becomes aromatic.
6. *turbinatus*, Roxb. (*fl. ind.* 3, *p.* 723 ;—*W. and A. pr.* 1, *p.* 342.) ⊙෴ Coromandel. Fl. largish, yellow, R. and C. S; fr. S. C.—*Fruit* eaten by the Natives.
7. *trigonus*, Roxb. (*fl. ind.* 3, *p.* 722 ;—*W. and A. pr.* 1, *p.* 342 ;—*Wight. icon.* 2, *t.* 497.) ⊙෴ Coromandel. Fl. small, yellow, R. and C. S.; fr. C. S.
8. *integrifolius*, Roxb. (*fl. ind.* 3, *p.* 724.) ⊙෴ Bengal. Fl. large, white ; and fr. R. S.

Cucurbita, L. (*Wight. ill.* 2, *p.* 31 ;—from Schrader.)

1. *maxima*, Duch. (*DC. pr.* 3, *p.* 316 ;—*W. and A. pr.* 1, *p.* 351 ;—*Wight. icon.* 2, *t.* 507 ;—*J. Grah. Cat. B. pl. p.* 79.—C. Melopepo, *Roxb. fl. ind.* 3, *p.* 719. *L.* ?) সফরীকুমড়া *Suphuree-koomra. Squash-Gourd. Red Gourd.* ⊙ ◡ Cultivated. Fl. very large, yellow, R. and C. S.; fr. C. S.—Flesh of the *fruit*, when boiled, tasting somewhat like a young carrot.

Coccinia, W. and A. (*pr.* 1, *p.* 347 ;—*Wight. ill. p.* 31 ;—from Schrader.)

1. *grandis*, (C. indica, *W. and A. l. c.* ;—*J. Grah. Cat. B. pl. p.* 78.—Bryonia grandis, *L.* ; *DC. pr.* 3, *p.* 305.—B.? Moimoi, *Ser ; DC. l. c.* —Momordica monadelpha, *Roxb. fl. ind.* 3, *p.* 708 ;—*Rheed.* 8. *t.* 14 ;—*Burm. zeyl. t.* 19. *f.* 1, 2;—*Rumph.* 5, *t.* 166. *f.* 1.) তেলাকুচা *Tela-koocha.* ♃. ◡ Both Peninsulas of India, Bengal, (Serampore,) Saharunpore, Delhi. Fl. large, white ; and fr. the whole year.—Ripe *fruit* eaten raw by the Natives, and greedily devoured by birds; while green used in curries.

Jollifia, *Bojer.* (*DC. pr.* 3, *p.* 316.)

1. *africana*, Delile. (*DC. l. c.* Feuillea pedata, *Sm.* ♀ *B. M.* 53, *t.* 2681. Telfairia pedata, *Hook* ; ♂ *B. M.* 54, *t.* 2751-2 ; *J. Grah. Cat. B. pl. p.* 79.) ♃. ◡ Pemba, near the shores of Zanzibar. Introduced into H. C. G.; fl.? The oil of the fruit equal to that of the finest olives.

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* *Cucurbita ovifera*, L. ⊙ Astrachan. This species (*Vegetable Marrow*,) is considered one of the most nourishing and wholesome of the whole tribe. *Ceratosanthes tuberosa*, Spreng. Trichosanthes tuberosa, Willd. ;—B. M. 53, t. 2703. ♄ ◡ W. Indies.

SUB-ORDER.—NHANDIROBEÆ, St. Hil.

Wight. ill. 2, p. 28, annot.

This small tribe consists but of 2 genera of undershrubby, climbing plants: *Fevillea* with 5 W. Indian and S. American species; and *Zanonia*, with 9 E. Indian ones. Of the latter, 6 have been found in Nepal, Assam, the Khassya Mountains, Prome and Taong Dong; 1 in the Peninsula of India, and 2 in Java. Properties unknown.

ZANONIA, L. (*DC. pr.* 3, *p.* 298;—*W. and A. pr.* 1, *p.* 340.)

1. *clavigera*, Wall. Cat. ♄ ◡ Khassya Mountains. Introduced here in 1836.—Has not fl.

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* *Fevillea punctata*, Poir. ♄ ◡ St. Domingo.—*F. trilobata*, L. ♄ ◡ Brazil.—*F. tamnifolia*, H. B. and Kth. ♄ ◡ S. America.—*Zanonia indica*, L. ♄ ◡ Malabar.

ORDER XXXII.—LOASACEÆ, Lindl. Nat. Syst. p. 53.

Annual or perennial, seldom climbing herbs, of 11 genera, embracing more than 40 species, natives of the more temperate regions or the tropics of America. Properties unknown.

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* *Klaprothia mentzelioïdes*, H. Kth. ⊙ S. America.—*Mentzelia hispida*, Willd.; B. M. 59, t. 3205. ♃. Mexico.—*M. strigosa*, H. B. Kth. ♃. Mexico.—*Loasa nitida*, Lam.; B. M. 50. t. 2372. ⊙ Peru. *L. Placei*, Lindl.; B. Reg. 19. t. 1599. ⊙ Chili.—*L. lateritia*, Hook; B. M. 65, t. 3632. ⊙ ◡ Tucuman.

ORDER XXXIII.—CACTACEÆ, Lindl. Nat. Syst. p. 53.

THE INDIAN FIG TRIBE.

Of this order of succulent, polymorphous plants, which, under 9 genera, contains about 250 species, "America is the station, no species appearing to be natives of any other part of the world. The species, which are said to be either wild or naturalized in Europe, Mauritius, and Arabia," (India and China) "have been introduced from America, and having found themselves in situations suitable to their habits, have taken possession of the soil like actual natives.—Hot, dry, exposed places are the favorite stations of Cactaceæ, for which they are peculiarly adapted, in consequence of the imperfect evaporating pores which they possess, as compared with other plants; a circumstance, which, as De Candolle has satisfactorily shown, will account for the excessively succulent state of their tissue." (*Lindl.*)

The chief importance of this order, is, that some of its species supply the food on which the cochineal insect lives.

MAMMILLARIA, Haw. (*DC. pr.* 3, *p.* 458.)

1. *simplex*, Haw. (*DC. o. c. p.* 459;—*Cactus mammillaris*, L.;—*Roxb. H. B. p.* 37.) ♄. W. Indies. Fl. smallish, white, Feb. and March; fr. 0.
2. *pusilla*, DC. (*pr.* 3, *p.* 459.) ♄. Hot parts of America. Fl. small, yellowish-red, March, but rare; fr. 0.
3. *stellata*, Haw. (*Loud. Hort. Brit.*) *p.* 194, *no.* 12531.) ♄ S. America.
4. *coronaria*, Haw. (*DC. pr.* 3, *p.* 458.) ♄. Mexico.
5. *flavescens*, DC. (*pr.* 3, *p.* 459.) ♄ Hot parts of America.

} Introduced into H. C. G. Fl.?

ECHINOCACTUS, Lk. and Otto. (*DC. pr.* 3, *p.* 461.)

1. *Ottonis*, Lk. (*B. M.* 58, *t.* 3107.) ♄ Brazil.
2. *Eyriesii*, Otto. (*B. Reg.* 20, *t.* 1707; *B. M.* 62, *t.* 3411.) ♄ Mexico.

} Introduced in 1840. Have not fl.

3. *cornigerus*, DC. (*pr.* 3, *p.* 461.) ♄ Mexico.—Introduced into H. C. G. Fl.?

CEREUS, DC. (*Pr.* 3, *p.* 463.)

1. *multangularis*, Haw. (*DC. l. c.*) ♄ S. America.
2. *peruvianus*, Tabern. (*DC. pr.* 3, *p.* 464.) ♄ Peru.
   β *monstrosus*, DC. (*l. c.*) ♄. S. America?

} Introduced into H. C. G. Fl.?

3. *hexagonus*, Haw. (*DC. pr.* 3, *p.* 470.—Cactus hexagonus, *L.*; *Roxb. H. B. p.* 37;—*B. Repos.* 8, *t.* 513.) ♄ Surinam. Fl. very large, white, fragrant, R. S.; fr. 0.
4. *tetragonus*, Haw. (*DC. pr.* 3, *p.* 466.—Cactus tetragonus, *L.*; *Roxb. H. B. p.* 37.)—♄ Fl. large, white, R. S.; fr. 0. (*Roxb.*)
5. *speciosissimus*, DC. (*pr.* 3, *p.* 468.—Cactus speciosissimus, *Desf.*;—*B. Reg.* 6, *t.* 486;—*B. M.* 49, *t.* 2306.) ♄ Mexico.—In H. C. G. Fl.?
6. *repandus*, Haw. (*DC. pr.* 3, *p.* 468.—Cactus repandus, *L.*; *B. Reg.* 4, *t.* 336.) ♄ W. Indies. Has been introduced into H. C. G. Fl.?
7. *columnaris*, Lodd. MSS. ♄. Introduced in 1840.
8. *grandiflorus*, Mill. (*DC. pr.* 3, *p.* 468;—*J. Grah. Cat. B. pl. p.* 82;—*B. M.* 62, *t.* 3381.—Cactus grandiflorus, *L.*;—*Roxb. H. B. p.* 37.) ♄ W. Indies. Fl. very large, white, fragrant, R. S., but rare; fr. 0.
9. *triangularis*, Haw. (*DC. pr.* 3, *p.* 468;—*J. Grah. Cat. B. pl. p.* 83;—*B. Reg.* 21, *t.* 1807.—Cactus triangularis, L.;—*Roxb. H. B. p.* 37;

—*B. M.* 44, *t.* 1884.) ♄ ◡ Mexico, W. Indies.—Fl. very large, white, fragrant, R. and C. S.; fr. 0.

10. *reptans*, Haw. ♄ ⌒ S. America? Introduced in 1839.—Has not fl.
11. *setosus*, Salm. (*Lodd. Cab.* 9. 1887.) ♄ Brazil. Introduced in 1840.
12. *phyllanthoïdes*, DC. (*pr.* 3, *p.* 469.—Cactus phyllanthoides, *DC.*;—*B. M.* 46, *t.* 2092.) ♄ Mexico. Introduced in 1838. Has not fl.
13. *truncatus*, DC. (*pr.* 3, *p.* 470.—Cactus truncatus, *Lk.*—*B. Reg.* 9, *t.* 696;—*B. M.* 52, *t.* 2562.) ♄ Brazil. Has been introduced into H. C. G. Fl.?
14. *Ackermanni*, Lindl. (*B. Reg.* 16, *t.* 1331, under Cactus) ♄ Mexico. Fl. large, scarlet, R. S.; fr. 0.
15. *ovatus*, G. Don. ♄ Chili.
16. *decorus*, Lodd. MSS. ♄.
17. *nycticallus*, Lodd. MSS. ♄.

} Introduced in 1840.

OPUNTIA, Tournef. (*DC. pr.* 3. *p.* 471;—*W. and A. pr.* 1 *p.* 363.)

1. *cylindrica*, DC. (*l. c.*—*B. M.* 61, *t.* 3301.—Cactus cylindricus, *Lam.*-*Roxb. H. B. p.* 37.) ♄ Peru. Fl. largish, (1 inch in diameter) scarlet.—Has not fl. with me. In H. C. G. it was introduced in 1806, but had not fl. in 1814. In England it was introduced in 1799, but it does not fl. there either. The figure in B. M. is from a plant, cultivated at Madeira.
2. *curassavica*, Haw. (*DC. pr.* 3. *p.* 472.—Cactus curassavicus, *L.*; *Roxb. H. B. p.* 37.) ♄ Curaçao. Fl. yellow, large (1½ inch across.) R. S.; fr. 0. (*Roxb.*)
3. *spinosissima*, Haw.? (*DC. pr.* 3 *p.* 472.) L. ♄. Jamaica. Fl. smallish ½ inch in diameter,) deep orange, several times a year; fr. 0.
4. *Dillenii*, Haw. (*DC. pr.* 3, *p.* 472;—*W. and A. pr.* 1, *p.* 363;—*Wight. ill.* 2, *t.* 114;—*J. Grah. Cat. B. pl. p.* 83.—Cactus Dillenii, *Ker.*; *B. Reg.* 3, *t.* 255.—C. indicus, *Roxb. fl. ind.* 2, *p.* 475.) নাগফেনা *Nag-phena*; *Hedge Prickly-Pear*. ♄. S. America.—Domesticated all over India. Fl. large, (two inches in diameter,) bright yellow, and fr. throughout the year.—"Upon this plant the Cochineal insects lately brought from America, thrive and multiply abundantly." (*Roxb.*)
5. *Roxburghïana*, (Cactus chinensis, *Roxb. fl. ind.* 2, *p.* 476.) L. ♄. This plant was introduced into H. C. G. before 1793, and in the course of twenty years only flowered once.—No doubt also of S. American origin.
6. *Tuna*, Haw. (*DC. pr.* 3, *p.* 472.—Cactus Tuna major, *Roxb. H. B. p.* 37.) ♄. S. America. Fl. large, reddish, R. S.—The favorite food of the Cochineal in Mexico and Brazil.
7. *elatior*, Haw. (*DC. pr.* 3, *p.* 472.—Cactus Tuna elatior, *Willd.*;—*Roxb. H. B. p.* 37.) ♄. S. America. Fl. large, purplish-yellow, R. S.; fr. R. and C. S.

8. *nigricans*, Haw. (*DC. pr.* 3, *p.* 473.—Cactus Tuna. β. nigricans, *B. M.* 38, *t.* 1557.) ♄ S. America. Has not fl. here.
9. *triacantha*, DC. (*l. c.*) ♄ S. America. Has been in the garden here many years, without fl.
10. *cochinillifera*, Haw. (*DC. l. c.*;—*J. Grah. Cat. B. pl. p.* 83.—Cactus cochinillifer, *L.*; *B. M.* 54, *t.* 2741-42;—*Roxb. H. B. p.* 37.) ♄. S. America. Fl. long, with the petals bright rose-coloured at several periods of the year; fr. 0.—Employed in the W. Indies successfully for rearing the Cochineal.
11. *Ficus-indica*, Haw. (*DC. pr.* 3, *p.* 473.—Cactus Ficus-indica, *L.*; *Roxb. H. B. p.* 37.) ♄ S. America. Fl. large, sulphur, R. S.
12. *tomentosa*, Salm. (*DC. l. c.*) ♄. S. America.—Introduced into H. C. G. Fl.?
13. *rubescens*, Salm. (*DC. pr.* 3, *p.* 474.) ♄ Brazil.—Introduced in 1840. Has not fl.
14. *vulgaris*, Haw. (*DC. l. c.*—Cactus Opuntia, *L.*; *B. M.* 50, *t.* 2393.) ♄ Southern states of N. America, and now cultivated in S. Europe, where the fruit is highly esteemed, and known under the name of *Indian Fig.* Has never fl. in Lower Bengal.
15. *brasiliensis*, DC. (*pr.* 3, *p.* 474;—*B. M.* 61, *t.* 3293.) L. ♄ Brazil. Fl. largish, greenish-yellow, R. S.; fr. 0.
16. *leucantha*, Hort. Berol. (*DC. l. c.*) Introduced into H. C. G. Fl.?

Pereskia, Plum. (*DC. pr.* 3, *p.* 474.)

1. *aculeata*, Haw. (*DC. l. c.*;—*B. Reg.* 23, *t.* 1928;—*J. Grah. Cat. B. pl. p.* 83.—Cactus Pereskia, *L. Roxb. H. B. p.* 37.) *West Indian Gooseberry.* ♄ ◡ W. Indies. Fl. largish, white. Here it does not fl.; at Bombay in R. S.; in England very seldom.
2. *Bleo*, H. B. Kth. (*DC. pr.* 3, *p.* 475;—*B. Reg.* 17, *t.* 1473;—*B. M.* 63, *t.* 3478.) ♄ New Granada, Mexico. Fl. largish, deep-rose. R. S.

Rhipsalis, Gärtn. (*DC. pr.* 3, *p.* 475.)

1. *salicornoides*, Haw. (*DC. l. c.*;—*B. M.* 51, *t.* 2461.) ♄ S. America. Fl. smallish, gold-coloured, but never appearing here.

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5. } New species from Rio Janeiro, (*Lodd. MSS.*) One of these has fl. twice. Fl. very small, white, C. S.

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* *Mammillaria Lehmanni*, Hort. Berol; B. M. 65. t. 3634. ♄ Mexico. *M. tenuis*, DC.; B. Reg. 18. t. 1523. ♄ Mexico.—*Melocactus depressus*, Hook; B. M. 65. t. 3691. ♄ Pernambuco.—*M. tubiflorus*, Hort. Angl. Pfeiff.; B. M. 65. t. 3627. ♄ Mexico.—*Cereus Napoleonis*, Hook, B. M. 63. t. 3458. ♄ W. Indies?—*C. serpentinus*, Lag.; B. M. 64. t. 3566. ♄ S. America.—*C. pentalophus*, DC.; B. M. 65. t. 3651. ♄ Mexico.—*C. Martianus*, Zucc.; B. M. 66. t. 3768. ♄ Mexico.—*C. Hookeri*, (Cactus Phyllanthus, Sims, B. M. 53. t. 2692. not L.) ♄ Su-

rinam.—*C. alatus.* (Cactus alatus, Swz. B. M. 55. t. 2820.) ♄ Rio Janeiro.—*Opuntia polyantha,* Haw. (Cactus polyanthos, Sims ; B. M. 53. t. 2691.) ♄ S. America.—*Lepismium myosurus,* Pfeiff. ; B. M. 66. t. 3755. ♄ Brazil.—*L. commune,* Pfeiff. ; B. M. 66. t. 3763. ♄ Brazil.

ORDER XXXIV.—HOMALIACEÆ,—Lindl. Nat. Syst. p. 55.

Trees or shrubs, of 9 genera, embracing 28 species: 12 from Madagascar and Mauritius ; 3 from S. Africa ; 6 from S. America, and the W. Indies ; 1 from China ; and 5 from the E. Indies. The latter all belong to *Blackwellia.*—Properties unknown.

BLACKWELLIA, Commers. (*DC. pr.* 2. *p.* 54.)

1. *spiralis,* Wall. (*DC. l. c. p.* 55 ;—Wall. *As. Research,* 13, *p.* 400, with a plate.) L. ♄ Pegu. Fl. very small, whitish, January and Feb. ; fr. 0.
2. *fœtida,* Wall. (Ludia fœtida, *Roxb. fl. ind.* 2, *p.* 508.) ♄ Amboina. Fl. small, whitish, R. S. ; fr. 0.
3. *propinqua,* Wall. Cat. ♄ Penang. In H. C. G., fl. Feb.
4. *cochinchinensis,* R. Br. (Astranthus cochinchinensis, Lour. ;—*DC. pr.* 2, *p.* 55 ;—*B. M.* 53, *t.* 2659.) ♃ Cochin-China. Fl. small, whitish. Introduced into H. C. G. Fl.

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* *B. nepalensis,* Wall. (Pl. as. rar. 2, t. 179.) ♄ Deyra Dhoon.—*B. paniculata,* Lam. (" *Bois à écorce blanche.*") ♃ Bourbon.—*B. padiflora,* Lindl ; B. Reg. 16. t. 1308. ♄ China. The finest species of the genus.—*Homalium racemosum,* Jacq. ; B. Reg. 6, t. 519. ♃ Jamaica.

ORDER XXXV.—MESEMBRYANTHEMACEÆ, MESEMBRYACEÆ,—Lindl. Nat. Syst. p. 56.

Shrubby or herbaceous plants, rarely annual, referred by Lindl. to 4 genera : Mesembryanthenum, Glinus, Orygia, and Kolleria. Excluding from Harvey's genera 21 species, they contain of S. African forms alone, 477. Only a few have been found in N. Holland, Van Diemen's Land, China, Chili, Peru, S. Europe, N. Africa, and the E. Indies. The latter consist of 3-4 species of *Glinus.*—Properties, as far as they are known, of no importance.

MESEMBRYANTHEMUM, L. (*DC. pr.* 3, *p.* 415.) *Fig-marygold.*—Nearly all natives of C. G. H.

1. *crystallinum,* L. (*DC. o. c. p.* 448.) ☉ ♂ C. G. H. Fl. small, white, H. S. ; fr. 0.—Also a native of the Canaries.
2. *cordifolium,* L. (*DC. o. c. p.* 449 ;—Jacq. ic. rar. 4, t. 487.) ♄ C. G. H. Fl. smallish, crimson, nearly throughout the year ; fr. 0.

GLINUS, L. (*DC. pr.* 3, *p.* 455;—*W. and A. pr.* 1, *p.* 362.)

1. *dictamnoïdes*, L. (*DC. l. c.*;—*W. and A. l. c.*—Pharnaceum pentagynum, *Roxb. fl. ind.* 2, *p.* 103;—*Burm. ind. t.* 36, *f.* 1.) দোসরা শাক *Dosura-shak.* ⊙ Both Peninsulas of India. Bengal, (Serampore.) Fl. small, greenish-red, R. and C. S.; fr. C. S.—The *tender shoots* are eaten by the Natives in their curries.

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* *Mesembrianthemum dolabriforme*, L.; B. M. 1, t. 32. ♄—*M. coccineum*, Haw.; B. M. 2, t. 59. ♄—*M. pinnatifidum*, L.; B. M. 2, t. 67. ⊙—*M. barbatum*, L.; B. M. 2, t. 70. ♄—*M. aureum*, L.; B. M. 8, t. 262. ♄—*M. edule*, L. ♄—*M. viridiflorum*, Ait; B. M. 10. t. 326. ♄—All Cape plants.

ORDER XXXVI.—BEGONIACEÆ, R. BR.—Lindl. Nat. Syst. p. 56.

Shrubby or herbaceous, rarely annual plants, amounting, as far as we can judge from Spreng. syst., B. M., B. Reg., and Wall. Cat., to 124 species, of which 1 belongs to Eupetalum, Lindl., and the rest to Begonia. The greater part of them inhabit S. America, Mexico and the W. Indies; 30 have been found in the E. Indies, chiefly in Nepal, the Khassya Mountains, the Neelgherries, and Tavoy; 2 in Madagascar; 1 in Mauritius; 1 in China; 1 in Japan, and 1 in the Island of Johanna.—Eupetalum is a Brazilian genus.—Properties apparently unimportant.

BEGONIA, L. (*Spreng. Syst.* 2, *p.* 565, *No.* 1998.)

1. *humilis*, Dryand. (*Spreng. o. c. p.* 626;—*B. Reg.* 4, *t.* 284.) ♂ W. Indies. Fl. small, whitish, H. S.; fr. R. S.
2. *nitida*, Ait. (*Spreng. syst.* 2, *p.* 625.) ♄ Jamaica. Fl. smallish, white, H. S.
3. *argyrostigma*, Fisch. (*B. Reg.* 8, *t.* 666.) ♄ Brazil. Fl. largish, white, R. S.; fr. 0.
4. *papillosa*, Grah. (*B. M.* 55, *t.* 2846.) ♄ Brazil? Fl. large, rose-coloured. R. S.; fr. 0.
5. *reniformis*, Dryand. (*Spreng. syst.* 2, *p.* 625;—*B. M.* 60, *t.* 3225.) ♄ Brazil. Fl. smallish, white, C. S.; fr. 0.
6. *malabarica*, Dryand. (*Roxb. fl. ind.* 3, *p.* 648;—*J. Grah. Cat. B. pl. p.* 172;—*Rheed.* 9, *t.* 86.) ♃. Goalpara, Chittagong. S. Concan. Fl. largish, pale rose-coloured, fragrant. In H. C. G. fl. H. and R. S. (*Roxb.*)
7. *laciniata*, Roxb. (*fl. ind.* 3, *p.* 649.) ♂♃. Garrow Hills, Khassya Mountains, Nepal.—In H. C. G. fl. R. S. (*Roxb.*)
8. *porrecta*, Wall. Assam.
9. *heracleifolia*, Schlecht. (*B. R.* 20, 1668;—*B. M.* 62, 3444.)—Mexico. March 1842.

* *B. undulata*, Schott.; B. M. 54. t. 2723. ♄ Brazil.—*B. insignis*, Grah.; B. M. 56. t. 2900; B. Reg. 23, t. 1996. ♄. S. America. *B. semperflorens*, Lodd.; B. M. 56, t. 2920. ♄. Brazil.—*B. diversifolia*, Grah.; B. M. 57, t. 2966. ♃. Mexico.—*B. longipes*, Hook; B. M. 57, t. 3001. Mexico.—*B. geraniifolia*, Hook; B. M. 62, t. 3387. Peru.—*B. sanguinea*, Radd; B. M. 63, t. 3520. ♄ Brazil.—*B. octopela*, L'Herit.; B. M. 64, t. 3559. Lima.—*B. monoptera*, Hook; B. M. 64, t. 3564. Brazil.—*B. platanifolia*, Schott; B. M. 64, t. 3591. Brazil?—*B. parvifolia*, Schott; B. M. 66. t. 3720. Brazil.—*B. sinuata*, Grah.; B. M. 66, t. 3731. Brazil.—*B. acuminata*, Dryand; B. Reg. 5. t. 364. Jamaica.—*B. villosa*, Lindl.; B. Reg. 15. t. 1252. Brazil.—*B. discolor*, R. Br. (B. Evansiana, Andr.; B. M. 36. t. 1473.) China.—*B. dipetala*, Grah.; B. M. 55. t. 2849. Bombay.—*B. picta*, Sm.; B. M. 57. t. 2962. Nepal.—*B. pedunculosa*, Wall. pl. as. rar. 1, t. 97. Khassya Mountains.—*Eupetalum Lindleyi*, (Begonia petalodes, Lindl.; B. Reg. 21. t. 1757.) Brazil.

ORDER XXXVII.—BRASSICACEÆ, Lindl. Nat. Syst. p. 58.

THE CABBAGE TRIBE.

Herbs, annual, biennial, or perennial, very seldom under-shrubs. Exclusive of species that are uncertain, or common to several different countries, it appears that about 100 are found in the southern hemisphere, and about 800 in the northern, and of these 91 in the new and the rest in the old world.

This calculation will, however, require considerable modification, especially in the Asiatic and N. American numbers, (*Lindl.*) and we shall, perhaps, not err much, if we take the amount of species of the whole order to be upwards of 1200. The Indian forms according to our materials, are 48 : 7 of *Nasturtium*; 2 of *Turritis*; 2 of *Arabis*; 8 of *Cardamine*; 2 of *Pteroneuron*; 1 of *Farsetia*; 6 of *Draba*; 1 of *Cochlearia?* 1 of *Thlaspi*; 1 of *Capsella*; 1 of *Hesperis*; 1 of *Sisymbrium*; 1 of *Alliaria*; 1 of *Lepidium*; (*Roxb.*) 1 of *Tauscheria*; 9 of *Sinapis*; 1 of *Eruca*; and 1 of *Crambe*. Fourteen of these are common to several parts of the world; 16 have been found in the Himalayas; 5 on the Neelgherries; 2 in Cochin-China; 4 in Java; 8 in Kunawar; and 11 in the plains, chiefly of Bengal.

Acrimony and bitterness form the grand characteristics of this useful order, to which we owe most of our antiscorbutic herbs, and a number of our Kitchen-vegetables. The principle of acridity seems to be a volatile oil, that soon evaporate, and, therefore, is greatly diminished by drying. It abounds in the Horse-radish, Common Cress, Radish, (especially the black Spanish Radish,) &c. which renders it necessary that these should be eaten fresh. In others the acrimony is mitigated by an abundance of mucilage,

various parts of such plants becoming wholesome food, f. ex. Turnip, Cabbage, Sea-kale, and the stems of several species of the Cabbage-tribe. The seeds retain their pungent qualities for a longer period of time, such as those of the white mustard, which have been highly esteemed for their tonic qualities. A great deal of azot enters into the nature of the whole tribe; hence perhaps their animal odour, when in a state of decomposition.

MATHIOLA, R. Br. (*DC. pr.* 1, *p.* 132.)

1. *annua*, Swt. (*DC. o. c. p.* 133.) *Ten-week Stock.* ⊙ Sea shores of S. Europe. Fl. largish, red, white, or double, Feb. and March; fr. March and April.
2. *longipetala*, DC. (*pr.* 1, *p.* 134.) ⊙ Bagdad. Fl. largish, yellowish-purple.
3. *parviflora*, R. Br. (*DC. pr. p.* 135.) ⊙ S. Spain, Morocco. Fl. small and purple.

} Fl. and fr. with No. 1.

CHEIRANTHUS, L. (*DC. pr.* 1, *p.* 135.)

1. *Cheiri*, L. (*DC. l. c.*;—*J. Grah. Cat. B. pl. p.* 7.) *Garden-Wall-flower.* লাহোরীসবু *Lahoree-suboo.* ♂ Walls, and stony places in Europe. Fl. largish, orange, Feb. and March; fr. April.

NASTURTIUM, R. Br. (*DC. pr.* 1, *p.* 137;—*W. and A. pr.* 1. *p.* 19.)

1. *officinale*, R. Br. (*DC. l. c.*;—*J. Grah. Cat. B. pl. p.* 7.—Sisymbrium Nasturtium, *L.*;—*E. B.* 12, *t.* 855.) *Water Cress.* ♃. Rivulets and ponds all over the world. Cultivated in our gardens. Has not fl. here.
2. *coronopifolium*, DC. (*pr.* 1, *p.* 138.) ⊙ N. Africa. Fl. small, pale yellow, Feb. and March; fr. April.

LEPTOCARPAEA, DC. (*pr.* 1, *p.* 140.)

1. *Löselii*, DC. (*l. c.*) ⊙ Germany. Fl. small, yellow, Feb. and March.

NOTOCERAS, R. Br. (*DC. pr.* 1, *p.* 140.)

1. *hispanicum*, DC. (*l. c.*) ⊙ S. Spain. Fl. minute, yellowish, and fr. H. S.

TURRITIS, Dill. (*DC. pr.* 1, *p.* 141.)

1. *glabra*, L. (*DC. o. c. p.* 142;—*E. B.* 11, *t.* 777.) ⊙ Europe, Himalaya. Fl. small, sulphur, and fr. H. S.

ARABIS, L. (*DC. pr.* 1, *p.* 142.)

1. *verna*, R. Br. (*DC. l. c.*) ⊙ S. Europe. Fl. small, purple, Feb. and March.
2. *Thaliana*, L. (*DC. o. c. p.* 144;—*E. B.* 13, *t.* 901.) ⊙ Europe. Fl. small, white, Feb. and March.

CARDAMINE, L. (*DC. pr.* 1, *p.* 149;—*W. and A. pr.* 1, *p.* 19.)

1. *hirsuta*, L. (*DC. o. c. p.* 152;—*W. and A. o. c. p.* 20;—*E. B.* 7, *t.* 492.) ⊙ Europe, Tauria, Persia, Neelgherries. Fl. small, white, Feb. and March; fr. March.

RICOTIA, L. (*DC. pr.* 1. *p.* 157.)

ægyptiaca, L. (R. Lunaria, *DC. l. c.*) ⊙ Egypt, Syria. Fl. small, purplish, March.

FARSETIA, Turr. (*DC. pr.* 1, *p.* 157.)

1. *cheiranthifolia*, DC. (*o. c. p.* 158.) ⊙ Levant. Fl. small, yellow, Feb. and March.

ALYSSUM, L. (*DC. pr.* 1, *p.* 160.)

1. *campestre*, L. (*DC. o. c. p.* 163.) ⊙ S. Europe. Fl. small, yellow, Feb. and March.

KONIGA, R. Br. (*in Clappert, narrat. p.* 214.)

1. *maritima*, R. Br. (Alyssum maritimum, *Lam.*;—*DC. pr.* 1. *p.* 164;—*E. B.* 25. *t.* 1729. A. halimifolium, *L.*;—*B. M.* 3, *t.* 101; not Willd.) 4. England, S. Europe. Fl. small, white, Jan., Feb. and March; fr. March and April.

CLYPEOLA, Gärtn. (*DC. pr.* 1. *p.* 165.)

1. *Jonthlaspi*. L. (*DC. l. c.*) ⊙ S. Europe, Persia. Fl. very small, yellow, Feb. and March.

DRABA, L. (*DC. pr.* 1, *p.* 166.)

1. *muralis*, L. (*DC. o. c. p.* 171;—*E. B.* 13, *t.* 912.) ⊙ Europe. Fl. small, white, Feb.

ERIOPHILA, DC. (*pr.* 1, *p.* 172.)

1. *vulgaris*, DC. (*l. c.*—Draba verna, *L.*;—*E. B.* 9, *t.* 586.) ⊙ Europe. Fl. very small, white, Feb.

COCHLEARIA, Tournef. (*DC. pr.* 1, *p.* 172.)

1. *Armoracia*, L. (*DC. o. c. p.* 173;—*E. B.* 33, *t*, 2323.) *Horse-radish.* 4. Europe.—Has been in the garden here more than ten years without flowering, but without the root having lost any of its pungency.
2. *anglica*, L. (*DC. pr.* 1. *p.* 173;—*E. B.* 8, *t.* 552.) *English Scurvy-grass.* ⊙ France, England, Denmark, &c. Fl. white, small, Feb. and March.
3. *danica*, L. (*DC. pr.* 1. *p.* 173;—*E. B.* 10, *t.* 696.) *Danish Scurvy-grass.* ⊙ Sea-shores of N. Europe. Fl. small, white, Feb. and March.
4. *officinalis*, L. (*DC. pr.* 1, *p.* 173;—*E. B.* 8. *t.* 551.) *Common Scurvy-grass.* ⊙ Sea-shores of N. Europe. Fl. small, white, Feb. and March.

THLASPI, Dill. (*DC. pr.* 1, *p.* 175.)

1. *arvene*, L. (*DC. l. c.*;—*E. B.* 24. *t.* 1659.) *Penny-Cress.* ⊙ Europe. Nepal. Fl. small, white, Feb. and March.

CAPSELLA, Vent. (*DC. pr.* 1, *p.* 177;—*W. and A. pr.* 1, *p.* 20.)

1. *Bursa pastoris*, Mönch. (*DC. l. c.*;—*W. and A. l. c.*;—Thlaspi Bursa pastoris, *L.*;—*E. B.* 21. *t.* 1485.) *Common Shepherd's Purse.* ⊙ Europe. India, Japan, Persia, Nepal. C. G. H. N. America, &c. Fl. small, white, Feb. and March.

HUTCHINSIA, R. Br. (*DC. pr.* 1, *p.* 177.)

1. *procumbens*, Desv. (*DC. o. c. p.* 178.) ⊙ S. Europe. Fl. small, white, Feb. and March.

TEESDALIA, R. Br. (*DC. pr.* 1. *p.* 178.)

1. *nudicaulis*, R. Br. (T. Iberis, *DC. l. c.*—Iberis nudicaulis, L.;—*E. B.* 5, *t.* 327.) ⊙. Europe. Fl. small, white, Feb. and March.

IBERIS, L. (*DC. pr.* 1. *p.* 178.)

1. *umbellata*, L. (*DC. o. c. p.* 179;—*B. M.* 3, *t.* 106.) *Purple Candy-tuft.* ⊙ Spain, Italy, Candia. Fl. largish, pale rose-purplish, March; fr. April.
2. *amara*, L. (*DC. pr.* 1, *p.* 180;—*E. B.* 1, *t.* 52.) *Bitter Candy-tuft.* ⊙ Europe. Fl. small, white, March; fr. April.
3. *odorata*, L. (*DC. l. c.;*) *Sweet-scented Candy-tuft.* ⊙ Candia. Fl. small, white, March; fr. April.
4. *Lagascana*, DC. (*pr.* 1, *p.* 179.) ⊙ Spain. Fl. small, white, March; fr. April.
5. *violacea*, R. Br. (*DC. l. c.*) Native place unknown. ⊙ Fl. violet, small, March; fr. April.

BISCUTELLA, L. (*DC. pr.* 1, *p.* 181.)

1. *ciliata*, DC. (*o. c. p.*182.) ⊙ Italy, Spain. Fl. small, yellow, March; fr. April.

CAKILE, Tournef. (*DC. pr.* 1, *p.* 185.)

1. *maritima*, Scop. (*DC. l. c.*—Bunias Cakile, *L.;*—*E. B.* 4, *t.* 231.) *Sea Rocket.* ⊙ Sea-shores of Europe. Fl. smallish, pale, purple, Feb. and March.

MALCOLMIA, R. Br. (*DC. pr.* 1, *p.* 186.)

1. *maritima*, R. Br. (*DC. o. c. p.* 187.—Cheiranthus maritimus. *L.;*—*B. M.* 5, *t.* 166.) ⊙ Sea shores of S. Europe. Fl. largish, purplish-rose, March; fr. April.
2. *africana*, R. Br. (*DC. pr.* 1, *p.* 187.) ⊙ S. Europe, N. Africa. Fl. largish, purple, March; fr. April.

HESPERIS, L. (*DC. pr.* 1, *p.* 188.)

1. *pulchella*, DC. (*o. c. p.* 189.) ⊙ Levant. Fl. smallish, purplish-rosy, Feb.; fr. April.

SISYMBRIUM, L. (*DC. pr.* 1, *p.* 190.)

1. *officinale*, Scop. (*DC. o. c. p.* 191.—Erysimum officinale, *L.;*—*E. B.* 11. *t.* 735.) *Common Hedge-mustard.* ⊙ Europe, N. Africa. Fl. very small, yellow, Jan. and Feb.; fr. March.
2. *Columnæ*, Jacq. (*DC. pr.* 1, *p.* 192.) ⊙ S. Europe. Fl. small, yellow, Feb. and March; fr. April.
3. *pannonicum*, Jacq. (*DC. pr.* 1, *p.* 193.) ⊙ Europe. Fl. small, pale yellow, Feb. and March.
4. *bursifolium*, L. (*DC. pr.* 1, *p.* 195.) ⊙ Sicily. Fl. small, white, Feb. and March; fr. April.
5. *fugax*, Lag. (*DC. pr.* 1, *p.* 196.) ⊙ Spain. Fl. small, yellow, Feb. and March; fr. April.

CAMELINA, Crantz. (*DC. pr.* 1, *p.* 201.)

1. *sativa*, Crz. (*DC. l. c.*—Alyssum sativum, *L.;*—*E. B.* 18, *t.* 1254.) ⊙ Europe. Fl. very small, yellowish, Feb. and March.

SENEBIERA, Poir. (*DC. pr.* 1, *p.* 202.)

1. *pinnatifida*, DC. (*o. c. p.* 203.—Lepidium didymum, *L.;*—*E. B.* 4,

t. 248.) ⊙ Europe. Fl. minute, yellowish, and fr. C. S. Domesticated in our gardens.

2. *Coronopus*, Poir. (*DC. l. c.*—Coronopus Ruellii, *Gärtn.*;—*E. B.* 24, *t.* 1660.) ⊙ Europe. Fl. minute, white, Feb. and March; fr. April.

LEPIDIUM, L. (*DC. pr.* 1, *p.* 203.)

1. *glastifolium*, Desf. (*DC. o. c., p.* 204.) ⊙ N. Africa. Fl. small, white, Feb. and March; fr. April.
2. *sativum*, L. (*DC. pr.* 1, *p.* 204;—*Roxb. fl. ind.* 3. *p.* 116—*J. Grah. Cat. B. pl. p.* 7.) *Garden Cress.* হালিম *Halim.* ⊙ Persia, Cyprus. Fl. small, white; and fr. C. S.
3. *campestre*, R. Br. (*DC. pr.* 1, *p.* 204.—Thlaspi campestre, *L.*;—*E. B.* 20, *t.* 1385.) ⊙ Europe. Fl. minute, white, Feb. and March; fr. March.
4. *ruderale*, L. (*DC. pr.* 1, *p.* 205;—*E. B.* 23, *t.* 1595.) ⊙ Europe. Fl. minute, white, Feb. and March; fr. March.
5. *incisum*, Roth. (*DC. l. c.*) ⊙ Caucasus. Fl. minute, white, Feb. and March; fr. March.

ISATIS, J. Bauhin. (*DC. pr.* 1, *p.* 210.)

1. *tinctoria*, L. (*DC. o. c. p.* 211;—*E. B.* 2, *t.* 97.) *Woad.* ♂ England. S. Europe. Fl. small, bright yellow, C. S.; fr. March.
2. *lusitanica*, Brot. (*DC. pr.* 1, *p.* 210.) ⊙ Portugal. Fl. small, yellow, Feb. and March; fr. April.

MYAGRUM, L. (*DC. pr.* 1, *p.* 212.)

1. *perfoliatum*, L. (*DC. l. c.*) ⊙ M. and S. Europe. Fl. small, pale yellow, Feb. and March; fr. April.

BRASSICA, L. (*DC. pr.* 1, *p.* 213.)

1. *oleracea*, L. (*DC. l. c.*;—*E. B.* 9. *t.* 637.) *Sea Cabbage.* ♂ Europe. Fl. small, yellow, Feb. and March; fr. April.—কোপি *Kopi.*

   α. *acephala*, DC.

      αα. *ramosa*; (*Cavalier Cabbage.*)

      ββ. *vulgaris*; (*Common green Cole-wort.*)

      γγ. *quercifolia*; (*Oak-leaved Cabbage.*)

      δδ. *sabellica*; (*Scotch Kale.*)

   β. *bullata*, DC.

      αα. *major*; (*Savoy Cabbage.*)

      ββ. *gemmifera*; (*Brussels' Sprouts.*)

   δ. *capitata*, DC.

      αα. *depressa*; (*Drumhead Cabbage.*)

      ββ. *sphærica*; (*Great round Scotch Cabbage.*)

      γγ. *obovata*; (*Penton Cabbage.*)

      δδ. *elliptica*; (*Early York Cabbage.*)

      εε. *conica*; (*Sugar-loaf Cabbage.*)

      ρρ. *rubra*; (*Red Cabbage.*)

   ε. *caulo-rapa*, DC.; (*Kohl-rabi.*)

   ρ. *botrytis*, DC.

αα. cauliflora ; (*Cauliflower.* ফুলকোপি *Phool-kopi.*)
ββ. asparagoïdes ; (*Broccoli.*)

2. *campestris,* L. (*DC. pr.* 1, *p.* 214 ;—*E. B.* 32. *t.* 2234.) *Field Cabbage.* ⊙ N. Europe. Fl. small, yellowish, Feb. and March ; fr. April.
3. *Rapa,* L. (*DC. pr.* 1, *p.* 214 ;—*E. B.* 31. *t.* 2176.) *Turnip* শালগম *Shalgrum.* ♂ Europe. Fl. small, yellow, Feb. and March ; fr. April.
4. *Napus,* L. (*DC. pr.* 1, *p.* 214 ;—*E. B.* 30, *t.* 2146.) *Rape ; Wild Cabbage ; Cole seed.* ♂ Native country unknown, much cultivated in Europe. Fl. small, yellow, Feb. and March ; fr. March.
5. *Erucastrum,* L. (*DC. pr.* 1, *p.* 216.) ⊙ France, Italy, Switzerland, &c. Fl. small, yellow, Feb. and March ; fr. April.

SINAPIS, L. (*DC. pr.* 1, *p.* 217 ;—*W. and A. pr.* 1, *p.* 20.)

1. *nigra,* L. (*DC. o. c. p.* 218 ;—*E. B.* 14, *t.* 969.) *Black Mustard.* ⊙ Europe. Fl. small, yellow, Feb. and March ; fr. April.
2. *lævigata,* L. (*DC. pr.* 1, *p.* 218.) ⊙ Spain and Portugal. Fl. small, yellow, Feb. and March ; fr. April.
3. *integrifolia,* Willd. (*DC. l. c.*) ⊙ China. Fl. small, yellow, Feb. and March ; fr. April.
4. *brassicata,* L. (*DC. pr.* 1, *p.* 219 ;—*Roxb. fl. ind.* 3, *p.* 120.) ⊙ China. Fl. small, yellow, Feb. and March ; fr. April.
5. *arvensis,* L. (*DC. l. c. ;—E. B.* 25, *t.* 1748.) *Charlock.* ⊙ Europe. Fl. small, yellow, Feb. and March ; fr. March.
6. *orientalis,* L. (*DC. pr.* 1, *p.* 219.) ⊙ Levant. Fl. small, yellow, Jan. and Feb. ; fr. March.
7. *alba.* L. (*DC. pr.* 1. *p.* 220 ;—*E. B.* 24, *t.* 1677.) ⊙ England. S. Europe. Fl. smallish, yellow, Feb. ; fr. March.
8. *dissecta,* Lag. (*DC. pr.* 1, *p.* 220.) ⊙ Spain. Fl. small, yellow, Feb. and March ; fr. March.
9. *foliosa,* Willd. (*DC. l. c.*) ⊙ Levant. Fl. small, yellow, Feb. and March.
10. *dichotoma,* Roxb. (*fl. ind.* 3, *p.* 117.) সর্ষা *Sursha.* ⊙ Bengal, (Serampore.) Cultivated on account of the oil of the seeds. Fl. smallish, yellow, C. S ; fr. Feb.
11. *glauca,* Roxb. (*fl. ind.* 3, *p.* 118.) শ্বেতরাঈ *Shwet-raï.* ⊙ Cultivated as a field-crop in all the northern parts of India. Fl. smallish, bright yellow, Jan. and Feb. *Seeds* used for many economical purposes, especially on account of the oil. (*Roxb.*)
12. *ramosa,* Roxb. (*fl. ind.* 3, *p.* 119.) বড়রাঈ *Boro-raï.* ⊙ Bengal, (Serampore.) Cultivated on account of the oil of its seeds. Fl. largish, yellow, Dec. ; fr. Feb.
13. *trilocularis,* Roxb. (*fl. ind.* 3, *p.* 121.) ⊙ Nepal. Fl. large, yellow, C. S. (*Roxb.*)
14. *cuneifolia,* Roxb. (*fl. ind.* 3, *p.* 121.) ⊙ Thibet. Fl. small, yellow. In H. C. G. fl. March ; fr. April. (*Roxb.*)

15. *rugosa*, Roxb. (*fl. ind.* 3, *p.* 122.) ⊙ Nepal. Fl. bright-yellow. In H. C. G. fl. C. S.; fr. March. (*Roxb.*)

16. *erysimoïdes*, Roxb. (*fl. ind.* 3, *p.* 123.) ⊙ Wynaad.—In H. C. G. fl. Feb. and March; fr. April. (*Roxb.*)

17. *divaricata*, Roxb. (*fl. ind.* 3, *p.* 123.) বনরাঈ *Bun-raï.* ⊙ Bengal, (Serampore.) Fl. very small, yellow; and fr. the greater part of the year.

18. *patens*, Roxb. (*fl. ind.* 3, *p.* 124.) বিলরাঈ *Bil-raï.* ⊙ Bengal, (Serampore.) Fl. very small, yellow, R. S.; fr. C. S.

19. *pusilla*, Roxb. (*fl. ind.* 3, *p.* 125.) ⊙ Coromandel? Fl. minute, yellow. In H. C. G. fl. C. S. (*Roxb.*)

ERUCA, Tournef. (*DC. pr.* 1, *p.* 223.)

1. *sativa*, Lam. (*DC. l. c.* Brassica erucoïdes, *Horn.—Roxb. fl. ind.* 3, *p.* 117.) শ্বেতসর্ষা *Shwet-sursha.* ⊙ S. Europe, N. Africa, Patna. Fl. small, pale yellow, Feb. Cultivated in India on account of the oil of its seeds.

CARRICHTERA, DC. (*pr.* 1, *p.* 224.)

1. *Vellæ*, DC. (*l. c.*—Vella annua, *L.*;—*E. B.* 21, *t.* 1442.) ⊙ England, S. Europe. Fl. small, pale yellow, purple-veined, Feb.; fr. March.

CRAMBE, Tournef. (*DC. pr.* 1, *p.* 225.)

1. *hispanica*, L. (*DC. o. c. p.* 226.) ⊙ Spain. Fl. small, white, March; fr. April.

RAPHANUS, L. (*DC. pr.* 1, *p.* 228.)

1. *sativus*, L. (*DC. l. c.*;—*Roxb. fl. ind.* 3, *p.* 126;—*J. Grah. Cat. B. pl. p.* 7.) মূলা *Moola. Common garden-radish.* ⊙ ♂ China, Japan, W. Asia. Fl. purplish-white, Feb. and March; fr. April.

   α *radicula*; Root more or less fleshy, white, rose-coloured or red,—round or oblong.

   β *niger*; Root fleshy, compact, hardish, of a very sharp taste. (*Black Spanish Radish.*) This sort, cut raw into slices, and shaken with a little salt between two plates, till the salt is dissolved, has been found an excellent stomachic and diuretic.

2. *Raphanistrum*, L. (*DC. pr.* 1, *p.* 229;—*E. B.* 12, *t.* 856.) *Wild radish.* ⊙ Europe. Fl. largish, yellow (white-blackish streaked or purplish,) Feb. and March.

3. *maritimus*, Sm. (*E. B.* 23, *t.* 1643;—*DC. l. c.*) *Sea-radish.* ♂ Fl. largish, yellow, C. S.

4. *caudatus*, L. (*DC. pr.* 1, *p.* 228;—*J. Grah. Cat. B. pl. p.* 7.) ⊙ Java. Fl. pale purple, Feb. and March. Much cultivated in Guzerat. (*J. Grah.*)

BUNIAS, L. (*DC. pr.* 1, *p.* 229.)

1. *Erucago*, L. (*DC. o. c. p.* 230.) ⊙ S. Europe. Fl. smallish, yellow, Feb; fr. March.

ERUCARIA, Gärtn. (*DC. pr.* 1, *p.* 230.)

1. *crassifolia*, Delile. (*DC. l. c.*) ⊙ Egypt. Fl. largish, purplish-white, Feb. and March.

HELIOPHILA, N. Burm. (*DC. pr.* 1, *p.* 231.)

1. *arabioïdes*, Curt. (*B. M.* 14. *t.* 496.—H. pilosa, *Lam.*;—β *incisa*, *DC. o. c. p.* 233.) ⊙ C. G. H. Fl. largish, blue, Feb.; fr. March.
2. *stricta*, Sims. (*B. M.* 52. *t.* 2526.) ⊙ C. G. H. Fl. small, indigo-coloured, Feb.; fr. March.

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* *Schizopetalon Walkeri*; Sims. B. M. 50. t. 2379. ⊙ Chili.—*Streptanthus obtusifolius*, Hook. B. M. 61. t. 3317. Arkansa.—*S. hyacinthoïdes*, Hook. B. M. 63. t. 3516. ⊙ Texas.

ORDER XXXVIII.—CAPPARIDACEÆ, Lindl. Nat. Syst. p. 61.

THE CAPER TRIBE.

Annual and perennial herbs, shrubs, (rarely climbing,) or trees, placed by Lindl. (*o. c. p.* 62.) in 26 genera, and, according to DC. (pr.) amounting to about 100 species for S. America, Mexico and the W. Indies; 23 for Africa, excluding the south; 11 for Arabia; 10 for New Holland and the South Sea Islands; 4 for Persia and Iberia; 4 for the Levant; 4 for N. America; 3 for Europe; 3 for Madagascar; 2 for Tauria; 2 for Timor; 1 for Mauritius; and 1 for China. For S. America, Sprengel, (syst.) adds 5 species. S. Africa contains 20 forms, (Harvey;) and the E. Indies 64. Of the latter, 1 belongs to *Gynandropsis*; 4 to *Cleome*; 4 to *Polanisia*; 4 to *Cratæva*; 2 to *Niebuhria*; 2 to *Cadaba*; 46 to *Capparis*; and 1 to *Roydsia*. Of these, 2 only (*Capparis nepalensis*, DC. and *C. obovata*, Buch.) have been found in the Himalayas; the rest are all tropical. Properties unimportant. *Capers* are the flower-buds of Capparis spinosa, L., a S. European shrub.

GYNANDROPSIS, DC. (*pr.* 1, *p.* 237;—*W. and A. pr.* 1, *p.* 21.)

1. *pentaphylla*, DC. (*o. c. p.* 238;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 7.—Cleome pentaphylla, *L.*;—*Roxb. fl. ind.* 3, *p.* 126;—*B. M.* 40. *t.* 1681;—*Rheed.* 9, *t.* 24;—*Rumph.* 5. *t.* 96. *f.* 3.) কানালা *Kanala*, শাদাহড়হড়িয়া *Shada Hoorhooriya*. ⊙ W. Indies. Tropical America. Peninsula of India. Bengal, (Serampore,) Seharunpore, Nepal. Fl. middle-sized, white, with crimson filaments, and fr. nearly the whole year. *Leaves* eaten by the Natives in their curries; bruised and applied to the skin, they act as a rubefacient.

CLEOME, L. (*DC. pr.* 1, *p.* 238;—*W. and A. pr.* 1, *p.* 21.)

1. *monophylla*, L. (*DC. o. c. p.* 239;—*W. and A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 129;—*J. Grah. Cat. B. pl. p.* 7.—C. cordata, *DC. l. c.*;—*Rheed.* 9, *t.* 34;—*Burm. zeyl. t.* 100.) ⊙ C. G. H. Ceylon. Peninsula of India. Fl. small, pale rose-coloured. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)
2. *heptaphylla*, L. (*DC. pr.* 1, *p.* 238.) ⊙ W. Indies.—In H. C. G. fl. and fr. the whole year. (*Roxb.*)

POLANISIA, Rafin. (*DC. pr.* 1, *p.* 242;—*W. and A. pr.* 1, *p.* 22.)

1. *Chelidonii*, DC. (*l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 7;—*Wight. icon.* 2, *t.* 319.—Cleome Chelidonii, *L.*;—*Roxb. fl. ind.* 3, *p.* 127.) ⊙ Peninsula of India. Fl. large, rose-coloured; and fr. R. S. —*Seeds* pungent, when powdered used by the Natives in their curries.
2. *icosandra*, W. and A. (*pr.* 1, *p.* 22;—*Wight. icon.* 1, *t.* 2;—*J. Grah. Cat. B. pl. p.* 8.—P. viscosa, β. *DC. pr.* 1, *p.* 242.—Cleome icosandra, *L.* C. dodecandra, *L.* ex. pte. et. excl. syn.—C. viscosa, *L.* excl. syn.; Roxb. fl. ind. 3, p. 128.—Rumph. 5, t. 96, f. 2.) হুড়হুড়িয়া *Hoorhooriya.* ⊙ Both Peninsulas of India. Bengal, (Serampore,) Saharunpore, Nepal. Fl. smallish, yellow, and fr. nearly the whole year. *Leaves*, bruised and applied to the skin, act as a sinapism. *Seeds* pungent, used by the Natives in their curries.

CRATÆVA, L. (*DC. pr.* 1, *p.* 242;—*W. and A. pr.* 1, *p.* 23.)

1. *Roxburghii*, R. Br. (*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 7.—Capparis trifoliata, *Roxb. fl. ind.* 2, *p.* 571.) তিক্তশাক *Tikto-shak.* ♄. Both Peninsulas of India. Bengal, (Serampore,) Saharunpore. Fl. large, white, becoming cream-coloured, with purple filaments, Feb. and March; fr. R. S.
2. *Nurvala*, Buch. (*W. and A. pr.* 1, *p.* 23;—*Rheed.* 3, *t.* 42.) ♄ Malabar, Mysore. Introduced in 1839. Has not fl.—Does it really differ from *No.* 1.?
3. *obovata*, Vahl. (*Symb.* 3, *p.* 61.) ♄ Madagascar.

NIEBUHRIA, DC. (*pr.* 1, *p.* 243;—*W. and A. pr.* 1, *p.* 23.)

1. *linifolia*, (N. linearis, *DC. pr.* 1, *p.* 244;—*W. and A. l. c.*;—*Wight. icon.* 1, *t.* 174.—Capparis linifolia, *Roxb. H. B.* (1814.) *p.* 41.) ♄ Coromandel. Fl. greenish-dark-purple, small, April; fr. 0.
2. *oblongifolia*, DC. (*pr.* 1, *p.* 244;—*W. and A. pr.* 1, *p.* 23;—*J. Grah. Cat. B. pl. p.* 7.—Capparis oblongifolia, *Forsk.*—C. heteroclita, *Roxb. fl. ind.* 2, *p.* 570.)—♄ ◡ Peninsula of India. Agra, Delhi. Fl. small, pale green, Dec. Jan. and Feb.; fr. 0.

CAPPARIS, L. (*DC. pr.* 1, *p.* 245;—*W. and A. pr.* 1, *p.* 24.)

1. *brevispina*, DC. (*o. c. p.* 246;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 8. C. acuminata, *Roxb. fl. ind.* 2, *p.* 566; not Willd. nor Lindl.) কালকেরা *Kalokera.* ♄ Malabar, Bengal, (Serampore.) Fl. largish, yellowish-white, C. S.; fr. R. S.
2. *Heyniana*, Wall. (*W. and A. pr.* 1, *p.* 25;—*J. Grah. Cat. B. pl. p.* 9;—*Rheed.* 6, *t.* 57.) ♄ Courtallum, Cochin, S. Concan. In H. C. G. Fl.?
3. *urophylla?* Wall. North-east of Bengal.
4. *horrida*, L. (*DC. pr.* 1, *p.* 246;—*W. and A. pr.* 1, *p.* 26;—*Wight icon.* 1, *t.* 173.—C. zeylanica, *Banks.*;—*Roxb. fl. ind.* 2, *p.* 567; not L.) ♄ ◡ Peninsula of India, Bengal, (Serampore,) Saharunpore. Fl. largish, white, becoming rose-coloured, H. S.; fr. R. S.

5. *sepiaria*, L. (*DC. pr.* 1, *p.* 247;—*W. and A. pr.* 1, *p.* 26;—*Roxb. fl. ind.* 2, *p.* 568;—*J. Grah. Cat. B. pl. p.* 9.) কাঁটাগুড়কামাঈ *Kantagoor-kamaee.* ♄ Peninsula of India. Bengal, (Serampore.) Fl. small, white, H. S.; fr. R. S. An excellent hedge-plant. (*Roxb.*)
6. *aphylla*, Roxb. (*H. B. p.* 41;—*DC. pr.* 1, *p.* 246;—*W. and A. pr.* 1, *p.* 27;—*J. Grah. Cat. B. pl. p.* 9.) ♄ Banks of the Jumna, Tinnevelly, Deccan, Guzerat. On his journey to Cabul, the Honorable Mr. Elphinstone found it growing in the midst of the desert. Has not fl. either here or in H. C. G. (at least in 1814,) though it had then been there seven years. In Guzerat the *berries* are pickled by the Natives.

? Roydsia, Roxb. (*Spreng. syst.* 2, *p.* 561, *No.* 1958.)

1. *suaveolens*, Roxb. (*Spreng. o. c. p.* 607;—*Roxb. fl. ind.* 2, *p.* 643.) ♄◡ Silhet. Fl. largish, yellow, fragrant. In H. C. G. fl. March; fr. August.

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* *Cleome pungens*, Willd.; B. M. 40, t. 1640. ⊙ W. Indies.—*C. pubescens*, Sims.; B. M. 43, t. 1857. ⊙ W. Indies?—*C. gigantea*, L.; B. M. 59, t. 3137. ♄ Trinidad.—*C. dendroïdes*, Schult.; B. M. 61, t. 3296. ♄ Brazil.—*C. rosea*, Vahl.; B. Reg. 12, t. 960. Rio Janeiro.—*C. speciosissima*, Deppe; B. Reg. 16, t. 1312. ⊙ Xalappa.—*Polanisia felina*, DC. Rheed. 9. t. 23. ⊙ Courtallum.—*Cratæva acuminata*, DC. ♄ Guiana.—*C. fragrans*, Sims.; B. M. 16, t. 596. ♃ S. Leona.—*Cadaba indica*, Lam; Burm. ind. t. 46, f. 3. ♄ Coromandel.—*C. trifoliata*, W. and A. ♄ Coromandel.—*Capparis Roxburghii*, DC. ♄ Coromandel.—*C. grandis*, L. Wight. icon. 1, t. 21. ♄ Mysore.—*C. floribunda*, Wight. ill. 1, t. 14. ♄ Peninsula of India.

ORDER XXXIX.—RESEDACEÆ, DC.—Lindl. Nat. Syst. p. 62.

THE MIGNONETTE TRIBE.

Annual or perennial herbs, of 4 genera, (*Lindl. l. c.*) containing, according to Spreng. syst., 22 species: 13 from Europe; 5 from N. Africa; 1 from S. Africa; 1 from the Canaries; 1 from China; and 1 from Cochin-China. One of the European species has been found on the Neelgherries.—Properties unimportant.

Reseda, L. (*Spreng. syst.* 2, *p.* 445, *No.* 1791;—*W. and A. pr.* 1, *p.* 28.)

1. *Luteola*, L. (*Spreng. o. c. p.* 463;—*E. B.* 5, *t.* 320.) *Dyer's Weed.* ⊙ Europe. Fl. small, yellowish, Feb. and March; fr. April.—Yields a yellow dye.
2. *virescens*, Horn. (*Spreng. l. c.*) ⊙ Spain. Fl. small, greenish, Feb. and March; fr. April.

3. *odorata*, L. (*Spreng. o. c. p.* 464;—*B. M.* 1, *t.* 29;—*J. Grah. Cat. B. pl. p.* 9.) *Mignonette.* ⊙ N. Africa. Fl. small, greenish, fragrant, Feb. and March; fr. April.
4. *Phyteuma*, L. (*Spreng. l. c.*) ⊙ Austria, Switzerland, S. Europe. Fl. small, greenish, Feb. and March.
5. *lutea*, L. (*Spreng l. c.*;—*E. B.* 5, *t.* 321.) *Wild Mignonette.* ⊙ Europe. Fl. small, yellowish, Feb. and March; fr. April.
6. *alba*, L. (*Spreng. l. c.*;—*W. and A. pr.* 1, *p.* 28;—*Wight ill.* 1, *t.* 15.) ♂ S. Europe, Neelgherries. Fl. small, white, C. S.

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* *Ochradenus baccatus*, Delile. ♄ Egypt.

ORDER XL.—VIOLACEÆ, Lindl. Nat. Syst. p. 63.

THE VIOLET TRIBE.

Perennial, rarely annual herbs, under-shrubs or shrubs (sometimes climbing) or small trees, amounting, under 17 genera, (*Lindl.*,) according to DC. pr., to 66 species for S. America, Mexico and the W. Indies; 34 for N. America; 27 for Europe; 6 for Siberia; 6 for N. Holland; 7 for Madagascar; 3 for Senegal; 2 for Caucasus; 1 for Altai; 1 for Persia; 1 for Arabia; and 1 for Manilla. S. Africa contains 3 species; (*Harvey*) and the E. Indies 27, viz. 11 from Nepal; 2 from the Khassya Mountains; 2 from the Neelgherries; 1 from Kunawur; 1 from Ceylon; 2 from Java; 2 from Penang; 1 from Oude; 4 from the plains of India; and 1 from Cochin-China; 19 of them belong to *Viola;* 3 to *Ionidium;* 3 to *Alsodeia;* and 1-2 to *Pentaloba.*

The roots of nearly all of the section Violëæ, have an acrid, nauseous taste, and possess the property of acting as emetics, in a greater or smaller degree. This is especially the case with Pombalia Ituba, Ging., a S. American under-shrub, which with Ionidium parviflorum, Vent. is considered to form part of those plants that produce *Ipecacuanha.* In Europe, Viola odorata, canina, tricolor and arvensis are among the emetic plants, though not acting powerfully enough to be of use in medicine.

VIOLA, L. (*DC. pr.* 1, *p.* 291;—*W. and A. pr.* 1, *p.* 31.)

1. *cucullata*, Ell. (*DC. o. c. p.* 292; β glaberrima;—*B. M.* 43, *t.* 1795.) 4. N. America. Fl. large, purplish-blue, C. S.; fr. 0.
2. *Roxburghiana*, (V. primulifolia, *Roxb. fl. ind.* 1, *p.* 650; *ed. Carey*, 2, *p.* 448; not L. nor Pursh. V. mysorensis, *Wall. Cat.?*) ⊙ Interior of Bengal, (*Roxb.*) Fl. smallish, indigo-coloured; and fr. throughout the year.
3. *odorata*, L. (*DC. pr.* 1, *p.* 296;—*E. B.* 9, *t.* 619.) *Sweet Violet.* 4. Europe, Siberia, China. Fl. largish, violet, sweet-scented, C. S.
4. *serpens*, Wall. (*DC. l. c.*;—*Roxb. fl. ind. ed. Carey*, 2, *p.* 449;—

Royle. ill. t. 18, *f.* 1.) ♃. Nepal, Khassya Mountains. Fl. smallish white, C. S.

5. *distans*, Wall. (*Cat.;—Trans. med. and phys. soc. Calcutt. vol.* 7, *part* 2, *p.* 227) ♃. Khassya Mountains. Fl. small, palish-violet, C. S.

6. *tricolor*, L. (*DC. pr.* 1, *p.* 303;—*J. Grah. Cat. B. pl. p.* 10;—*E. B.* 18, *t.* 1287.) *Heart's-ease.* ☉ Europe, Siberia, N. America. Fl. largish, violet, variegated with white and yellow, Jan. Feb. and March. *Herb* successfully used against crusta lactea.

IONIDIUM, Vent. (*DC. pr.* 1, *p.* 307;—*W. and A. pr.* 1, *p.* 32.)

1. *suffruticosum*, Ging. (*DC. o. c. p.* 311;—*W. and A. l. c.;—Wight. icon.* 1, *t.* 308;—*J. Grah. Cat. B. pl. p.* 10.—Viola suffruticosa, *L.; Roxb. fl. ind.* 1, *p.* 649; *ed. Carey*, 2, *p.* 447.—*Rheed.* 9. *t.* 60.) নুণবোড়া *Noonbora.* ♄ Peninsula of India. Bengal, (Serampore,) extending up the Gangetic Valley, nearly as far as Delhi. Fl. small, rose-coloured; and fr. nearly throughout the year.

ALSODEIA, Pet. Th. (*DC. pr.* 1, *p.* 313.)

1. *bengalensis*, Wall. (*Trans. med. and phys. soc. Calcutt. vol.* 7, *part* 2, *p.* 224.—Pentaloba? bengalensis, *Wall. Cat.*) ♄ Khassya Mountains. Fl. very small, white, nearly throughout the year.

2. *Roxburghii*, Wall. (*l. c.*—Vareca heteroclita, *Roxb. fl. ind.* 1. *p.* 648; *ed. Carey*, 2, *p.* 446.—Pentaloba? Roxburghii, *Wall. Cat.*) ♄ Lucknow, Amboina. Fl. small, white, C. S.

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* *Calyptrion Aubletii*, Ging. ♄ ◡ Guiana.—*C. pyrifolium*, Mart. ♄ Brazil. *Noisettia longifolia*, H. and B. ♄ Cayenne.—*Glossarrhen floribundus*, Mart. ♄ Brazil.—*Viola præmorsa*, Dougl.;—B. Reg. 15, t. 1254. ♃. California. Fl. large, gold-coloured.—*V. cornuta*, L.; B. M. 21, t. 791. ♃. Spain.—*V. lactea*, Sm.; E. B. 7, t. 445. ♃. Europe.—*V. palmata*, L.; B. M. 15, t. 535. ♃. Virginia.—*V. pedata*, L.; B. M. 3, t. 89.—*V. biflora*, L.; B. M. 46, t. 2089. ♃. S. Europe.—*V. Patrinii*, DC. Wight. ill. t. 18. Siberia, Neelgherries.—*V. canina*, L.; E. B. 9, t. 620.—*Solea concolor*, Ging. ♃. Pennsylvania.—*Pombalia Ituba*, Ging. (Ionidium Ipecacuanha, β: B.M. 51, t. 2453.) ♄ Guiana.—*Hybanthus havanensis*, H. B. and Kth. ♄ Havanna.—*Alsodeia physiphora*, R. Br. ♄ Brazil.—*Piparea dentata*, Aubl. ♄ Cayenne.

SUB-ORDER.—SAUVAGESIEÆ, Lindl. Nat. Syst. p. 64.

Shrubs or annual herbs, of 2 genera, and 9 species; 8 from tropical S. America, and 1 from Madagascar.—Properties unimportant.

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* *Sauvagesia geminiflora*, Moç. and Sesse. ♃. Mexico.—*S. erecta*, L. ☉ S. America.

ORDER XLI.—SAMYDACEÆ, Lindl. Nat. Syst. p. 64.

Shrubs or trees, of 3 genera, containing, to judge from DC. pr., Wall. Cat. and Rept. and Royl. ill., 60 species: 1 from New Caledonia; 1 from Mauritius; 37 from S. America, Mexico and the W. Indies; and 21 from the E. Indies. Of the latter, 18 belong to *Casearia*, and 3 are by R. Br. in Wall. Cat. put down as *Samideæ*. They inhabit chiefly the Himalayas, the Circars, the Khassya Mountains, Assam, and Penang. 1 has been found in the Moluccas, and 3 in Java.—Properties unimportant.

CASEARIA, Jacq. (*DC. pr.* 2, *p.* 48.)

1. *Vareca*, Roxb. (*fl. ind.* 2, *p.* 418.—Vareca, *Gärtn. fr.* 1, *t.* 60.) ♄ Khassya Mountains, Goalpara. Fl. small, greenish-yellow, May; fr. Sept. and Oct.
2. *glomerata*, Roxb. (*o. c. p.* 419.) ♄ Silhet. Fl. small, greenish-yellow.—In H. C. G. fl. Dec.; fr. March. (*Roxb.*)
3. *Canziala*, Wall. (Samyda Canziala, *Buch. in Wall. Cat.*—C. ovata, *Roxb. fl. ind.* 2, *p.* 420. excl. syn. Rheed;—not Willd.) ♄ Goalpara. Fl. small, greenish, March.
4. *glabra*, Roxb. (*fl. ind.* 2, *p.* 421.) L. ♄ Moluccas. Fl. small, greenish. In H. C. G. fl. nearly throughout the year. (*Roxb.*)
5. *tomentosa*, Roxb. (*fl. ind.* 2, *p.* 421.) ♄ Circars, Kemaon, Deyra-Dhoon. Fl. small, greenish, yellow, H. S.; fr. R. S.
6. *lanuginosa*, Buch. Goalpara.

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* *Samyda rosea*, Sims.; B. M. 16, t. 550. ♄ St. Domingo.

ORDER XLII.—MORINGACEÆ, Lindl. Nat. Syst. p. 65.

THE HORSE-RADISH-TREE TRIBE.

The only genus belonging to this order is:—

MORINGA, Burm. (*DC. pr.* 2, *p.* 478;—*W. and A. pr.* 1, *p.* 178.)

1. *pterygosperma*, Gärtn. (*DC. l. c.*;—*W. and A. l. c.*;—*Wight. ill.* 1, *t.* 77;—*J. Grah. Cat. B. pl. p.* 43.—Hyperanthera Moringa, *Vahl.*;—*Roxb. fl. ind.* 2, *p.* 368;—*Rheed.* 6, *t.* 11;—*Rumph.* 1, *t.* 74.) শজিনা *Sujina. Horse-radish-tree.* ♄ Both Peninsulas of India. Bengal, (Serampore,) Hindoosthan, &c. up to the Himalayas.—Domesticated in equatorial America. Fl. middle-sized, smelling of honey, Jan. Feb. and March; fr. H. S.—*Root* a substitute for Horse-radish, used medicinally by the Natives.—*Bark*, wounded, exudes a quantity of gum. *Leaves*, *flowers* and *immature capsules* eaten by the Natives in their curries, the latter forming, according to Dr. Gibson, a good substitute

for asparagus. *Oil of the seeds* in the W. Indies used as salad oil, and because it does not congeal or turn rancid, employed by watch-makers, and for retaining the aroma of delicate flowers.

β. *rubriflora*, Roxb. Fl. red.—Malda.

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* *M. concanensis*, Nimmo; J. Grah. Cat. B. pl. p. 43. ♄ South Concan.

Besides these two species, 3 additional ones (2 Indian, and 1 Arabian,) are mentioned, but they are very uncertain.

ORDER XLIII.—DROSERACEÆ, DC.—Lindl. Nat. Syst. p. 66.

THE SUNDEW TRIBE.

Herbaceous, rarely shrubby, bog or water-plants, of 6 genera amounting to 52 species: 13 from S. America; 6 from N. America; 4 from Europe; 12 from S. Africa; 1 from Madagascar; 8 from New Holland; 2 from Van Diemen's Land; 2 from China; and 4 from the E. Indies. One species, Drosera Burmanni, Vahl., grows on the mountains as well as on the plains, and one, Drosophyllum lusitanicum, Lk., lives on hills and on the barren sands of Portugal. Of the E. Indian forms, 1 belongs to *Aldrovanda*, and is, according to W. and A., identical with the S. European A. vesiculosa, L. The 3 others are species of *Drosera*. Properties unimportant. Drosera communis, St. Hil., of Brazil, is said to be poisonous to sheep. The same has been said of other species. *D. lunata*, Buch. might perhaps, according to Royle, yield a valuable dye, as the paper in which the plants were dried became of a pink colour.

DROSERA, L. (*DC. pr.* 1, *p.* 317;—*W. and A. pr.* 1, *p.* 33.)

1. *Burmanni*, Vahl. (*DC. o. c. p.* 318;—*W. and. A. o. c. p.* 34;—*Roxb. fl. ind.* 2, *p.* 113;—*Wight. ill.* 1, *p.* 42, *t.* 20;—*J. Grah. Cat. B. pl. p.* 11.—*Burm. zeyl. t.* 94, *f.* 2.) ⊙ Ceylon, Peninsula of India. Bengal, Silhet. Fl. very small, yellow; and fr. C. S.

ALDROVANDA, L. (*DC. pr.* 1, *p.* 319;—*W. and A. pr.* 1, *p.* 34.)

1. *vesiculosa*, L. (*DC. l. c.*;—*W. and A. l. c.*—A. verticillata, *Roxb. fl. ind.* 2, *p.* 112.) মালাকাঝাঁজি *Malaka-jhanji*. ⊙ Standing water in S. Europe and Bengal. Fl. small, white. Has been introduced into H. C. G. The Bengalee name of the plant is familiar to some of my gardeners, but they have as yet not succeeded in procuring it from the neighbourhood.

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* *Drosera indica*, L.; Wight. ill. 1, p. 42, t. 20, f. C. Ceylon, Peninsula of India, Tavoy.—*D. lunata*, Buch.; Wight. ill. 1, p. 42, t. 20, f. D. under the name of D. peltata.

SUB-ORDER.—PARNASSIEÆ. Arn.—Wight ill. 1, p. 43.

A small tribe of herbaceous perennial herbs, of 1 genus, and 12 species: 1 European; 1 Siberian; 5 N. American; and 5 Indian. Of the latter, 1 has been found on the Mountains in the south of the Peninsula of India; 1 in Mysore; the rest in the Himalayas. Properties unimportant. Parnassia palustris, L. was formerly used in diseases of the eye, and liver.

* *Parnassia mysorensis,* Heyne. Wight. ill. 1, p. 45, t. 21. ♃. Mysore.

ORDER XLIV.—FRANKENIACEÆ, St. Hil.—Lindl. Nat. Syst. p. 67.

Herbs, rarely annual, or under-shrubs, of 3 genera, containing 25 species; 3 N. African; 6 S. African; 2 N. American; 1 S. American; 1 from the Canaries; 1 from St. Helena; 1 from Mogador; 3 from New Holland; 1 from Tauria; and 5 common to several parts of the world.—Properties unknown.

* *Frankenia pulverulenta,* L.—E. B. 17, t. 1211. ⊙ Sea-shores of Europe.
Beatsonia portulacifolia, Roxb. ♄. Shores of St. Helena.

ORDER XLV.—PASSIFLORACEÆ,—Lindl. Nat. Syst. p. 67.

THE PASSION-FLOWER TRIBE.

Herbs or shrubs, generally climbing, seldom erect, very rarely trees, of 14 genera, and more than 200 species. By far the greater part of these inhabit S. America, Mexico, and the W. Indies. 20 have been found in the E. Indies; 7 in New Holland and Van Diemen's Land; 4 in Madagascar; 3 in Sierra Leona; 2 in S. Africa; 1-2 in N. America; and 1 in Mauritius. Of the E. Indian forms, which chiefly have been found in Java and both Peninsulas of India, 1 belongs to *Tacsonia;* 6 to *Passiflora;* and 12 to *Modecca.*

"Nothing is known of the properties of this order further than that the succulent aril and pulp that surround the seed are fragrant, juicy, cooling, and pleasant, in several species." (*Lindl.*)

Passiflora, L. (*DC. pr.* 3, *p.* 322;—*W. and A. pr.* 1, *p.* 352.)

1. *minima,* Jacq. (*DC. o. c. p.* 325;—*B. Reg.* 2. *t.* 144;—*Roxb. H. B. p.* 49;—*J. Grah. Cat. B. pl. p.* 80.) ♄ ◡ Curaçao. Fl. small, yellowish-green, fragrant; and fr. the whole year.
2. *suberosa,* L. (*DC. l. c.*;—*Roxb. H. B. p.* 49.) ♄ ◡ W. Indies. Fl. white, fragrant, R. S.

3. *biflora*, Lam. (*DC. pr.* 3, *p.* 326.—P. lunata, *Sm.*;—*B. Reg.* 7, *t.* 577;—*B. M.* 49, *t.* 2354.) ♄ ◡ Mexico, Jamaica. Fl. middle-sized, greenish-white, fragrant, throughout the year.
4. *serratifolia*, L. (*DC. pr.* 3, *p.* 327;—*B. M.* 18, *t.* 651.) ♄ ◡ Surinam. Fl. large, greenish-blue, purple, fragrant, R. S.
5. *quadrangularis*, L. (*DC. pr.* 3, *p.* 328;—*B. M.* 46, *t.* 2041;—*B. Reg.* 1, *t.* 14.) ♄ ◡ Jamaica. Fl. very large, whitish rose-coloured, variegated with blue, &c. fragrant, R. S.
6. *alata*, Ait. (*DC. l. c.*;—*B. M.* 2, *t.* 66;—*B. Cab.* 3, *t.* 246.) ♄ ◡ Peru, W. Indies. Fl. very large, rose-scarlet, variegated with several colours, fragrant, R. S.
7. *laurifolia*, L. (*DC. l. c.*;—*Roxb. H. B. p.* 49;—*J. Grah. Cat. B. pl. p.* 80;—*B. Reg.* 1, *t.* 13.) ♄ ◡ W. Indies, Surinam. Fl. large, blue, variegated with several colours, fragrant, R. S.; fr. C. S.
8. *racemosa*, Brot. (*DC. pr.* 3, *p.* 329;—*B. Reg.* 4, *t.* 285;—*B. M.* 45, *t.* 2001.—P. princeps, *B. Cab.* 1, *t.* 84.) ♄ ◡ Brazil. Fl. very large, intensely red, variegated with purple, scentless; at different periods of the year, but especially C. S,
9. *coeruleo-racemosa*, Sab. (*DC. l. c.*;—*B. C.* 6, *t.* 573.) A Hybrid of P. racemosa (female) and P. coerulea (male.) ♄ ◡ Fl. large, scentless, blue, R. S.
10. *incarnata*, L. (*DC. pr.* 3, *p.* 329;—*B. M.* 65, *t.* 3697.) β *alba*. ♄ ◡ Virginia. Introduced in 1840.
11. *edulis*, Sims. (*B. M.* 45, *t.* 1989;—*DC. l. c.*—P. incarnata, β. *B. Reg.* 2, *t.* 152.) ♄ ◡ Brazil. Fl. middle-sized, greenish-white, R. S., fr. C. S., eatable, of a grateful scent.
12. *coerulea*, L. (*DC. pr.* 3, *p.* 330;—*B. M.* 1, *t.* 28;—*B. Reg.* 6, *t.* 488;—*Roxb. H. B. p.* 49.) ♄ ◡ Brazil. Fl. large, pale-green, variegated with deep-green, blue, pale-rose and yellow, R. S.
13. *foetida*, Cav. (*DC. pr.* 3, *p.* 331;—*B. Reg.* 4, *t.* 321;—*B. M.* 53, *t.* 2619;—*J. Grah. Cat. B. pl. p.* 80.) ♃. Creeping. W. Indies. Fl. largish, greenish-white, R. S.; fr. C. S.—Whole plant fetid.
14. *chinensis*, Wall. MSS. ♄ ◡ China? Introduced in 1836. Fl. 1839.
15. *Mayana*, Veitch. MSS. ♄ ◡ Received from Killerton Nursery, Exeter. Has not fl. here.
16. *phoenicea*, Lindl. (*B. Reg.* 19, *t.* 1603.) ♄ ◡ S. America? Fl. in 1840.
17. *holosericea*, L. (*ejusdem amoen* 226, *t.* 10, *b.* 15;—*B. Reg.* 1, *t.* 59;—*B. M.* 45, *t.* 2015.) Vera Cruz. Fl. 1840.
18. *kermesina*, Lk. and Otto. (*B. Reg.* 19, *t.* 1633;—*B. M.* 63, *t.* 3503.) Fl. 1840.

Murucuia, Tournef. (*DC. pr.* 3, *p.* 333.)

1. *ocellata*, Pers. (*DC. l. c.*—Passiflora Murucuia, L.; *B. Reg.* 7, *t.* 574.) ♄ W. Indies. Fl. middle-sized, scarlet, R. S.

Modecca, Rheed. (*DC. pr.* 3, *p.* 336;—*W. and A. pr.* 1, *p.* 353.)

1. *palmata*, Lam. (*DC. l. c.*;—*W. and A. l. c.*;—*Wight. icon.* 1, *t.* 201.—

M. tuberosa, *Roxb. fl. ind.* 3, *p.* 134.—M. integrifolia, Lam.; *DC. l. c.*; —*Rheed.* 8, *t.* 20-23.) ♄ ◡ Courtallum, Cochin. Fl. largish, yellowish-pale-green, scentless. In H. C. G. fl. R. S.; fr. Oct. (*Roxb.*)

2. *dubia*, Roxb. (*fl. ind.* 3, *p.* 135.) ♄ ◡ Sumatra. Fl. small, pale greenish-yellow. In H. C. G. fl. Feb. (*Roxb.*)
3. *trilobata*, Roxb. (*Corom.* 3, *t.* 271;—*fl. ind.* 3, *p.* 132;—*Spreng. syst.* 3, *p.* 45.) ♄ ◡ Chittagong. Fl. middle-sized, yellow. In H. C. G. fl. R. S.; fr. Sept. and Oct. (*Roxb.*)
4. *furfuracea*, Wall. Cat. ♄ ◡ Prome. Introduced in 1839. Has not fl.
5. *extensa*, Wall. ♄ ◡ Khassya Mountains. In H. C. G. fl. R. S.

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* *Smeathmannia pubescens*, Soland. 5 S. Leona.—*Paropsia edulis*, Pet. Th. ♄ Madagascar.—*Astrophea ovata*, Lindl. 5 Guiana.—*Passiflora onychina*, Lindl. B. R. t. 21; B. M. 67, t. 3820. ♄ ◡ Rio Janeiro.—*P. Mooreana*, Hook.; B. M. 66, t. 3773. ♄ ◡ Buenos Ayres.—*P. gossypiifolia*, Desv.; B. Reg. 19, t. 1634. ♄ ◡ Tropical America.—*P. tucumanensis*, Hook. B. M. 65, t. 3636. ♄ ◡ Tucuman, St. Jago.—*P. nigelliflora*, Tweedie. B. M. 65, t. 3635. ♄ ◡ St. Jago d'Estero.—*P. filamentosa*, Cav.; B. M. 46, t. 2023. ♄ ◡ S. America.—*P. pallida*, L.; B. Reg. 8. t, 660. St. Domingo ♄ ◡.—*P. angustifolia*, Swz.; B. Reg. 3, t. 188; B. M. 45, t. 1983. ♄ ◡ W. Indies. *P. peltata*, Cav.; B. Reg. 6, t. 507. ♄ ◡ W. Indies.—*P. perfoliata*, L.; B. Reg. 1, t. 78. ♄ ◡ Jamaica.—*P. rubra*, L.; B. Reg. 2, t. 95. ♄ ◡ W. Indies.—*P. capsularis*, L.; B. M. 55, t. 2868. ♄ ◡ W. Indies.—*P. Maximiliana*, Bory. (P. Vespertilio, L.; B. Reg. 7, t. 597.) ♄ ◡ Brazil.—*P. tuberosa*, Jacq.; B. Reg. 5, t. 432. ♄ ◡ Tropical America.—*P. maliformis*, L.; B. Reg. 2, t. 94. ♄ ◡ St. Domingo.—*P. ligularis*, Juss.; B. Reg. 16, t. 1339; B. M. 57, t. 2967. ♄ ◡ Peru.—*P. albida*, Ker.; B. Reg. 8. t. 677. ♄ ◡ Brazil.—*P. stipulata*, Aubl. (P. glauca, Ait.; B. Reg. 1, t. 88, not Humb. ?) ♄ Cayenne, Brazil.—*P. palmata*, Lodd. (P. filamentosa. β Ker. B. Reg. 7, t. 584) ♄ ◡ Brazil.—*P. picturata*, Ker.; B. Reg. 8, t. 673. ♄ ◡ Brazil.—*P. ciliata*, Ait.; B. M. 8, t. 288. ♃. Jamaica.—*Disemma Herbertiana*, DC. (Passiflora Herbertiana, Ker.; B. Reg. 9. t. 737.) ♄ ◡ N. Holland.—*D. coccinea*, DC. ♄ ◡ N. Holland.—*Tacsonia sanguinea*, DC. ♄ ◡ W. Indies.—*Ryanæa speciosa*, Vahl. ♄ Trinidad, Cayenne.—*Patricia bicolor*, DC. 5 Cayenne.

ORDER XLVI.—PAPAYACEÆ,—Mart. Lindl. Nat. Syst. p. 69.

THE PAPAW TRIBE.

Trees, natives of S. America, arranged in 1 genus, containing according, to Spreng. syst., 6 species.

CARICA, L. (*Spreng. syst.* 3, *p.* 895, *No.* 3190;—*W. and A. pr.* 1, *p*, 325.)

1. *Papaya*, L. (*Spreng. o. c. p.* 905;—*Roxb. fl. ind.* 3, *p.* 824;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 80;—*B. Reg.* 6. *t.* 459. (*male*);—*B. M.* 56. *t.* 2898-9;—*Wight. ill.* 2, *t.* 106-7;—*Rheed.* 1, *t.* 15. *f.* 1, (*male,*) *and* 2 (*female*).—*Rumph.* 1, *t.* 50.) পেঁপিয়া *Pepiya.* ♄. S. America. Domesticated in India. Fl. middle-sized, pale yellow, fragrant; and fr. nearly the whole year.—*Trees* about Serampore either straight and without branches like a palm, or branched. *Leaves* employed by the negroes in the W. Indies to wash their linen, instead of soap. *Fruit*, when unripe, used in curries by the Natives, also pickled, and made into a preserve;—when ripe, the soft, yellow pulp, which is very delicious to many, is eaten without the addition of pepper and sugar, as in the W. Indies. It is certainly wholesome, more especially when some of the olive-coloured, pungent, caper-like seeds are partaken of at the same time. *Juice of the pulp* employed in the W. Indies against freckles, *of the unripe fruit* as an efficient vermifuge. "The tree has, moreover, the singular property of rendering the toughest animal substances tender, by causing a separation of the muscular fibre; its very vapour even does this; newly-killed meat suspended among the leaves, and even old hogs and old poultry, when fed on the leaves and fruit, become tender in a few hours.—A principal constituent of the juice of the unripe fruit is fibrine, a principle otherwise supposed peculiar to the animal kingdom and to fungi." (*Lindl.*)

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* *C. citriformis*, Jacq. *fil*; B. M. 65, t. 3133. ♄ Guiana.

ORDER XLVII.—FLACOURTIACEÆ.—Lindl. Nat. Syst. p. 70. Bennet in Horsf. pl. jav. rar. 2, p. 189-190

Shrubs or small trees, forming 10-13 genera, Flacourtia, Phoberos, Roumea. Banara, Zylosma, Prockia, Thiodia, Aphloia, Azara, Echinocarpus, Trichospermum, Ludia? Lætia? from Madagascar; Guinea; Africa; Mauritius; New Holland; S. America. Fifteen species are from the E. Indies. Of those which inhabit Nepal, the Neelgherries, Java, Sumatra and the Moluccas, 9 belong to *Flacourtia*; and 9 to *Phoberos*. —Properties nearly unknown.

FLACOURTIA, L'Herit. (*DC. pr.* 1. *p.* 256;—*W. and A. pr.* 1, *p.* 29.)

1. *Ramontchi*, L'Herit. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 834;—*Wight. icon.* 1, *t.* 85;—*J. Grah. Cat. B. pl. p.* 10.) ♄ Madagascar. Introduced into H. C. G. Fl.?
2. *sapida*, Roxb. (*Corom.* 1. *t.* 69;—*fl. ind.* 3. *p.* 835;—*DC. pr.* 1, *p.* 256;—*W. and A. pr.* 1, *p.* 29;—*J. Grah. Cat. B. pl. p.* 10.) বুঁইচ *Booinch.* ♄ Peninsula of India. Bengal, (Serampore,) Hindoos-

than and northwards to Deyra-Dhoon. Fl. minute, greenish, C. S.; fr. H. S.—*Fruit* eaten by the Natives.

3. *sepiaria*, Roxb. (*Corom.* 1, *t.* 68;—*fl. ind.* 3, *p.* 835;—*DC. pr.* 1, p. 256;—*W. and A. pr.* 1, *p.* 29;—*J. Grah. Cat. B. pl. p.* 10;—*Rheed.* 5, *t.* 39.) ♄ Peninsula of India, Bengal, Nepal, Kemoan. Fl. minute, greenish, C. S.; fr. H. S.
4. *inermis*, Roxb. (*Corom.* 3, *t.* 222;—*fl. ind.* 3, *p.* 833;—*DC. pr.* 1, *p.* 256;—*W. and A. pr.* 1, *p.* 29.) ♄ Moluccas, both Peninsulas of India, Silhet. Fl. minute, greenish, Feb. and March; fr. Nov. *Fruit* too sour to be eaten raw, but makes very good tarts. (*Roxb.*)
5. *cataphracta*, Roxb. (*fl. ind.* 3, *p.* 834;—*DC. pr.* 1, *p.* 256.) পানিআলা *Paneeyala.* ♄ Assam, Monghir, Nepal. Fl. minute, greenish, C. S.—*Fruit* palatable, reckoned wholesome. (*Roxb.*)
6. *ferox*, Wall. MSS.—In H. C. G. Fl.?
7. *obcordata*, Roxb. (*fl. ind.* 3, *p.* 835.) ♄ Chittagong. Has been introduced into H. C. G.?
8. *cordifolia*, Roxb. (*H. B. p.* 73.) ♄ Silhet. Introduced into H. C. G. in 1810, but had not fl. in 1814.
9. *rotundifolia*, Roxb. (*l. c.*) ♄ Coromandel. Introduced into H. C. G. in 1804, but had not fl. in 1814.
10. *Campbelliana*, Roxb. (*l. c.*) ♄ Sumatra.—Introduced into H. C. G. in 1800, but had not fl. in 1814.

PHOBEROS, Lour. (*W. and A. pr.* 1, *p.* 29.)

1. *chinensis*, Lour. (Roumea chinensis, *Wall. Cat.*) ♄ Introduced in 1840.
2. *Roxburghii*, Bennet. (in Pl. Jav. Rar. p. 182. sine charactere.—Ludia spinosa, *Roxb. fl. ind.* 2, *p.* 507.—Flacourtia? Stigmarota, *Wall. Cat.*) ♄ Sumatra. Fl. small, reddish-white, March and April; fr. Sept. (*Roxb.*) The tree in the garden here unarmed.

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* ? *Erythrospermum macrophyllum*, Poir. ♄ Mauritius.?—*E. paniculatum*, Poir. ♄ Mauritius.?—*E. verticillatum*, Lam. ♄ Mauritius.

ORDER XLVIII.—PANGIACEÆ, Lindl. Nat. Syst. p. 70.

Containing only the 3 following species:—

HYDNOCARPUS, Gärtn. (*DC. pr.* 1, *p.* 257;—*W. and A. pr.* 1, *p.* 30.)

1. *inebrians*, Vahl. (*DC. l. c.*;—*W. and A. l. c.*;—*Wight. ill.* 1, *t.* 16;—*J. Grah. Cat. B. pl. p.* 10.) ♄ Ceylon, Malabar. Fl. small, white.—In H. C. G. Fl.?—*Fruit* used at Ceylon for poisoning fish.
2. *odoratus*, Lindl. (*Wight. ill.* 1, *p.* 37.—Gynocardia odorata, *Roxb. Cor.*—Chaoolmoogra odorata, *Roxb. fl. ind.* 3, *p.* 836.) L. ♄ Assam, Silhet. Fl. large, pale yellow, fragrant. Has been in the garden

here for more than twelve years, without fl.—*Seeds* used by the Natives at Silhet in the cure of cutaneous disorders. Freed from their integuments, they are beaten up with clarified butter into a soft mass, and in this state applied thrice a day to the parts affected. (*Roxb.*)

* ***Pangium Rumphii,*** (Rumph. 2, t. 59.) ♄ Java, Moluccas.

ORDER XLIX.—TURNERACEÆ, DC.—Lindl. Nat. Syst. p. 71.

Annual and perennial herbs, sometimes under-shrubs, all natives of S. America, Mexico and the W. Indies, of 2 genera and 31 species.—Properties unknown.

TURNERA, L. (*DC. pr.* 3, *p.* 346.)

1. ***ulmifolia,*** L. (*DC. l. c.*)

   β. ***angustifolia,*** DC. (T. angustifolia, Curt.;—*B. M.* 8, *t.* 221.) ♄ Jamaica. Fl. largish, uniformly yellow; and fr. the whole year. Domesticated about Serampore.

2. ***trioniflora,*** Sims. (*B. M.* 47, *t.* 2106;—*DC. pr.* 3, *p.* 346.) ♃. Brazil, Trinidad, Mexico. Fl. large, cream-coloured with a dark purple-eye; and fr. the whole year. Domesticated about Serampore.

* *T. cuneiformis,* Juss. ♄ Rio Janeiro—*T. brasiliensis,* Willd. ♄ Brazil. —*T. acuta,* Spreng. ♄ Jamaica.—*Piriqueta villosa,* Aubl. ⊙ Guiana.

ORDER L.—BIXACEÆ.—Lindl. Nat. Syst. p. 72.

THE ARNOTTO TRIBE.

Trees of only one genus, and 1-2 species.

BIXA, L. (*DC. pr.* 1, *p.* 259;—*W. and A. pr.* 1, *p.* 31.)

1. *Orellana,* L. (*DC. l. c.*) ♄ Hot parts of America. Fl. largish, inodorous, R. S.; fr. C. S.

   α *caribæa,* (Bixa Orellana, *B. M.* 35, *t.* 1456.) Cultivated in the W. Indies. Fl. rose-coloured; immature fr. dark reddish-brown.

   β. *indica,* (Bixa Orellana, *Roxb. fl. ind.* 2, *p.* 581;—*W. and A. pr.* 1, *p.* 31;—*Wight. ill.* 1, *t.* 17;—*J. Grah. Cat. B. pl. p.* 10;—*Rumph.* 2, *t.* 19.) লটকন *Lutkun.* Flowers white; immature fruit, green. Cultivated in India.

Bixa yields the substance *Arnotto,* in France called *Rocou,* which is the pulp of the seeds. Farmers use it to stain their cheeses, and dyers to obtain a reddish colour. The dye of the Indian variety is neither so abundant, nor so good, as that from the W. Indies; where also the bark of the tree is used for cordage.

ORDER LI.—GARCINIACEÆ (CLUSIACEÆ. Lindl. Nat. Syst. p. 74.)

THE MANGOSTEEN TRIBE.

Trees or shrubs, rarely climbing, sometimes (Clusia) parasitical, with the exclusion of Xanthochymus, contained, according to Lindl. (*l. c.*) in 22 genera. Of these our materials only assign 35 species to S. America, Mexico and the W. Indies, but their number must be considerably greater. Two species have been found in Madagascar; 1 in Mauritius; 1 in Guinea; 1 in Tongatabu; and 60 in the E. Indies. (Moluccas, Java, Ceylon. Both Peninsulas of India. The Khassya Mountains, Silhet.) Of the latter, 30 belong to *Garcinia;* 20 to *Calophyllum;* 6 to *Mesua;* 1 to *Gynotroches;* 1 to *Kayea;* 1 to *Calysaccion*; and 1 to *Apoterium.*

A very good synopsis of the Indian Garciniaceæ (Guttiferæ) will be found in *Wight's. ill.* 1, p. 124-129.

"The species of this order, (*Guttiferæ,*) all abound in a viscid, yellow, acrid and purgative gum-resinous juice resembling *Gamboge.* This gum-resin is obtained by removing the bark, or by breaking the leaves and young shoots." (*Lindl.*) "The most important and finest qualities are generally considered to come from the kingdom of Siam, and are imported into England from China by way of Singapore. Among these the wholesale druggist distinguishes by name at least two, and generally three varieties—*Pine Gamboge, Cake or Lump Gamboge* and *Coarse Gamboge.*" (*Graham in Companion to Bot. Mag.*) The first variety is well known under the name of Gum Gamboge.

GARCINIA, L. (*Wight. ill.* 1, *p.* 124.)

1. *Mangostana,* L. (*Wight. l. c.*;—*DC. pr.* 1, *p.* 560;—*Gärtn. fr.* 2, *t.* 105;—*Roxb. fl. ind.* 2, *p.* 618;—*J. Grah. Cat. B. pl. p.* 26;—*Rumph.* 1, *t.* 43, female.) ♄ Moluccas. Malay Islands. Fl. large, reddish green yellow. Has not fl. in Bengal, I believe; indeed, it can scarcely be kept alive.—Gives the well-known fruit, *Mangoosteen,* believed to be the most palatable of all known fruits.
2. *cornea,* L. (*Wight. ill.* 1, *p.* 124;—*DC. pr.* 1, *p.* 561;—*Roxb. fl. ind.* 2, *p.* 229;—*Wight. icon.* 1, *t.* 105;—*Rumph.* 3, *t.* 30.) ♄ Moluccas. Penang. Moulmein. Fl. middle-sized, yellowish, Feb. and March; fr. May and June.
3. *Kydiana,* Roxb. (*H. B. p.* 42;—*Wight. ill.* 1, *p.* 125; *icon.* 1, *t.* 113.—G. Kydia, *Roxb. fl. ind.* 2, *p.* 623, not W. and A.) ♄ Andaman Islands. Fl. middle-sized, yellowish.—In H. C. G. fl. Feb.; fr. July. Fruit very sharp but pleasantly acid, and, like the rest of the genus, the aril is by far the more palatable part. (*Roxb.*)
4. *pedunculata,* Roxb. (*fl. ind.* 2, *p.* 625;—*Wight. ill.* 1, *p.* 125;—*icon.* 1, *t.* 114. (female,) and 115, (male.)) L. ♄ Rungpore.—In H. C. G. Fl. ?—Aril copious, firm, and of a very sharp, pleasantly acid taste. (*Roxb.*)

5. *paniculata*, Roxb. (*fl. ind.* 2, *p.* 628;—*Wight. ill.* 1, *p.* 125; *icon.* 1, *t.* 112.) ♄ Silhet. Fl. small, white. In H. C. G. fl. C. S; fr. July. Aril palatable, tasting somewhat like that of the Mangosteen. (*Roxb.*)

6. *purpurea*, Roxb. (*fl. ind.* 2, *p.* 624;—*Wight. ill.* 1, *p.* 125;—*J. Grah. Cat. B. pl. p.* 25.) ♄ Malabar. In H. C. G. Fl. ?—Fruit agreeably acid, eaten by the Natives. Workers in iron use the acid juice as a mordaunt; a concrete oil is obtained from the seeds, which is well known and used at Goa for adulterating ghee. (*Bombay Courier*, 12*th June*, 1830.)

7. *lanceæfolia*, Roxb. (*fl. ind.* 2, *p.* 623;—*Wight. ill.* 1, *p.* 125;—*icon.* 1, *t.* 103. *male.*) ♄ Silhet. In H. C. G. Fl. ?—Cultivated at Silhet, on account of its fruit, of which the Natives are fond.

8. *Roxburghii*, Wight. (*ill.* 1, *p.* 125;—*icon.* 1, *t.* 104;—*J. Grah. Cat. B. pl. p.* 26.—G. Cambogia, *Roxb. Corom.* 3, *t.* 298;—*fl. ind.* 2, *p.* 621; not Desrouss.—G. zeylanica, *Roxb. fl. ind. p.* 621.—G. Cowa, *Roxb. fl. ind.* 2, *p.* 622;—*W. and A. pr.* 1, *p.* 101.—G. affinis, *W. and A. l. c.*—*J. Grah. Cat. B. pl. p.* 25.) ♄ Ceylon, Travancore, Malabar, Chittagong. Fl. small, sulphur-coloured, Feb.; fr. June. Fruit eatable, but very acid.

9. *dioeca*, Sm. (*Rees' Cyclop. vol.* 15.) ♄ In H. C. G. Fl. ?

10. *porrecta*, Wall. Ceylon. In H. C. G. Fl. ?

MAMMEA, L. (*DC. pr.* 1, *p.* 561.) *Mammee tree.*

1. *americana*, L. (*DC. l. c.*;—*Roxb. H. B. p.* 41.) ♄ W. Indies.—In. H. C. G. fl, H. S. (*Roxb.*) In the W. Indies the juice is employed to destroy the chiggers, little insects which attack the naked feet, introducing themselves into the flesh below the toe nails. (*Lindl.*)

MESUA, L. (*DC. pr.* 1, *p.* 562;—*W. and A. pr.* 1, *p.* 102.)

1. *Roxburghii*, Wight. (*ill.* 1, *p.* 127.—Mesua ferrea, *Roxb. fl. ind.* 2, *p.* 605, not W. and A. ?) নাগকেশর *Nagkushur.* ♄ Cultivated in Bengal. Fl. very large, fragrant, H. S.; fr. C. S. Flowers found in the bazars in a dried state, being used in medicine as well as esteemed for their fragrance. The grandees of Ava are said to stuff their pillows with the dried anthers of the flowers, on account of their fragrance. (*Roxb.*)

CALOPHYLLUM, L. (*DC. pr.* 1, *p.* 562;—*W. and A. pr.* 1, *p.* 102.)

1. *Inophyllum*, L. (*DC. l. c.*;—excl. syn. Rumph.;—*W. and A. o. c. p.* 103. excl. syn. Rumph. and C. Bintagor, Roxb.;—*Roxb. fl. ind.* 2, *p.* 606;—*Wight. icon.* 1, *t.* 77;—*J. Grah. Cat. B. pl. p.* 26.) সুলতানাচাঁপা *Sultana-champa.* L. ♄ Both Peninsulas of India. Fl. largish, white, fragrant, June and July; fr. C. S.

2. *polyanthum*, Wall. 5 Khassya Mountains. In H. C. G.

3. *angustifolium*, Roxb. (*fl. ind.* 2, 608.) 5 Penang.

4. *Tacamahaca*, Wild. (*DC. pr.* 1, *p.* 562.) 5 Madagascar, Sechelles.

KAYEA, Wall. (*Wight. ill.* 1, *p.* 129.)

1. *floribunda*, Wall. (*Pl. as. rar.* 3, *t.* 201;—*Wight. l. c.*) L. ♄ Khassya Mountains. Fl. largish, white, tinged with rose, fragrant. In H. C. G. Fl.?

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* *Garcinia speciosa*, Wall. pl. as. rar. 3, t. 258. ♄. Amherst.—*G. celebica*, L. Rumph. 1, t. 44. ♄. Island of Celebes.—*G. cochinchinensis*, Choisy. Rumph. 3, t. 32. ♄. China. Perhaps the very tree that yields the Pipe Gamboge.—*G. Cambogia*, Desrouss. Rheed. 1, t. 24. ♄ Ceylon. Malabar. Courtallum.—*G. Gutta*, Wight. ill. 1, t. 44. ♄ Ceylon.—*G. javanica*, Bl. ♄ Java.—*G. Bhoomicowa*, Wall. Cat. ♄ Silhet.—*Gynotroches axillaris*, Bl. ♄ Java.—*Mesua speciosa*, Choisy. Rheed. 3, t. 53. ♄. Malabar.—*M. ferrea*, L. Wight. icon. 1, t. 118. ♄ Ceylon. *M. coromandelina*, Wight. icon. 1, t. 117. ♄ Courtallum.—*M. pedunculata*, Wight. icon. 1, t. 119. ♄ Mergui.—*Calophyllum Blumii*, Wight. ♄ Java.—*C. Bintagor*, Roxb. Rumph. 2, t. 71. ♄ Moluccas. Mauritius.—*C. tomentosum*, Wight. ♄ Ceylon.—*C. decipiens*, Wight. Rheed. 4. t. 39. ♄ Travancore. S. Concan.—*C. Moonii*, Wight. icon. 1, t. 111. ♄ Ceylon.—*C. Burmanni*, Wight. icon. 1, t. 108. ♄ Ceylon.—*Calysaccion longifolium*, Wight. ♄ Bombay.—*Rheedia lateriflora*, L. ♄ Martinique.—*Pentadesma butyracea*, R. Br. The Butter-tree of S. Leona.—*Moronobea coccinea*, Aubl. ♄ Guiana.—*Micranthera clusiæfolia*, Choisy. ♄ Cayenne.—*Quapoya scandens*, Aubl. ♄ Guiana.—*Q. Panapanari*, Aubl. ♄ Guiana.—*Clusia rosea*, L. ♄ St. Domingo.—*C. alba*, L. ♄ S. America.—*C. flava*, L. ♄ Jamaica.—*Tavomita guianensis*, Aubl. ♄ Guiana, Brazil.

ORDER LII.—CANELLACEÆ, Mart.—(Sub-Order? CANELLEÆ, Lindl. Nat. Syst. p. 75.)

Trees, contained in 2 genera, Platonia Mart.; S. American, and CANELLA, P. Browne, (*DC. pr.* 1, *p.* 563.)

1. *alba*, Murr. (*DC. l. c.;—Trans. Linn. Soc.* 1, *p.* 102, *t.* 8. Winterana Canella, L.) ♄ W. Indies. Fl. small, glaucous-brown, fragrant, H. S.; fr. 0. *Bark* stimulant, tonic, but now almost obsolete.

ORDER LIII.—CARYOCARACEÆ, (RHIZOBOLACEÆ.—DC. Lindl. Nat. Syst. p. 76.)

"Six large trees found in the forests of the hottest parts of S. America constitute the whole of the order.—Some of them are known for producing the *Souari* (vulgò Suwarrow) Nuts, of the shops, the kernel of

which is one of the most delicious fruits of the nut kind that is known. An oil is extracted from them not inferior to that of the Olive." (*Lindl.*)

* *Caryocar nuciferum*, L. B. M. 54. t. 2727-8. *Souari, or Butter-nut.* Essequebo, Berbice. Flowers very large, purplish-brown.—*C. glabrum*, Pers. Guiana.—*C. tomentosum*, Willd. Guiana.—*C. butyrosum*, Willd. Guiana.

ORDER LIV.—MARCGRAAVIACEÆ, Juss.—Lindl. Nat. Syst. p. 77.

Shrubs, sometimes of a scrambling habit, (Marcgraavia) of 4 genera, containing 9 species: 1 from New Caledonia, and 8 from S. America and the W. Indies.—Properties unknown.

* *Marcgraavia umbellata*, L. ♄ Trinidad. *M. coriacea*, Vahl.. ♄ Guiana. *Norantea guianensis*, Aubl. ♄ Guiana. *N. brasiliensis*, Choisy. ♄ Brazil. *Ruyschia clusiæfolia*, Jacq. ♄ Guiana. *R. Souroubea*, Willd. ♄ Guiana.

ORDER LV.—HYPERICACEÆ, Lindl. Nat. Syst. p. 77.

THE TUTSAN TRIBE.

Perennial herbs, undershrubs, shrubs, or trees, "very generally spread all over the earth, inhabiting mountains and vallies, marshes and dry plains, meadows and heaths, in N. America, Asia, S. America, Europe, Africa, and its neighbouring Islands, and New Holland," (*Lindl.*), who refers all of them to 13 genera.—"These are by *Spach* increased to 27, species of 23 of which were formerly united under the large and very complex genus Hypericum." (*Wight. ill.* 1, *p.* 111.) DC. (1824) enumerates 165 species, of which N. America contains the largest number, 38; Europe 28; S. America 20; the E. Indies 9, &c. The latter now amount to 45; 1 of *Ancistrolobus*; 4 of *Xanthochymus*; 7 of *Norysca*; 2 of *Brathys*; and, according to DC., Spreng, and Wall. Cat., 31 of *Hypericum*, and "*Hypericineæ*,"—Most of these species have been found on the Himalayas, the Khassya Mountains, the Neelgherries, and at Penang and Singapore.—Properties unimportant.

Ancistrolobus, Spach. (*Wight. ill.* 1, *p.* 111.)

1. *carneus*. Wall. (*Rept.*—Hypericum carneum, *Wall. Cat.*) 5 China. Fl. small, palish scarlet, March, April and May; fr. C. S.

Xanthochymus, Roxb. (*DC. pr.* 1, *p.* 562;—*W. and A. pr.* 1, *p.* 101)—Referred to this order conformably with the views of *Wight. ill.* 1, *p.* 122.

1. *pictorius*, Roxb. (*Corom.* 2, *t.* 196;—*fl. ind.* 2, *p.* 633;—*DC. pr.* 1, *p.* 562;—*W. and A. pr.* 1, *p.* 102.) L. ♄ Circars. Penang. Silhet.

Fl. small, greenish-white, April; fr. C. S.—This beautiful tree yields a green fruit and a large quantity of indifferent gamboge. (*Roxb.*) Does not possess the elements of Gamboge. (*Wight.*)

2. *ovalifolius*, Roxb. (*fl. ind.* 2. *p.* 632;—*W. and A. pr.* 1, *p.* 102;—*J. Grah. Cat. B. pl. p.* 26.—Stalagmites cambogioïdes, *Moon's Cat. Ceylon, pl.*—Cambogia Gutta, *Burm. fl. ind. ex pte.*) ♄ Ceylon. Fl. very small, greenish-white, H. S. fr. July.
3. *dulcis*, Roxb. (*fl. ind.* 2, *p.* 631;—*B. M.* 58, *t.* 3088;—*Wight. icon.* 1, *t.* 192.) ♄ Moluccas, Penang.. Fl. smallish, greenish-white, June and July; fr. C. S.

Norysca, Spach. (*in Wight. ill.* 1, *p.* 113.)

1. *chinensis*, (Hypericum chinense, *L.*;—*DC. pr.* 1, *p.* 545.—H. monogynum, *L.*;—*B. M.* 10, *t.* 334;—*Roxb. fl. ind.* 3, *p.* 400.) ♄ China. Fl. large, gold-coloured, and fr. the greater part of the year.
2. *cernua* (Hypericum cernuum, *Roxb. fl. ind.* 3, *p.* 400.) ♄ Hurdwar, Shreenagur. Fl. large, gold-coloured, Jan. Feb. and March; fr. 0.
3. *patula*, (Hypericum patulum, *Thunb.*—H. uralum, *Buch.*;—*B. M.* 50, *t.* 2375.) ♄ Nepal, Kemaon, Khassya Mountains.—Has been introduced into H. C. G. Fl.?

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* *Haronga madagascariensis*, Choisy. ♄ Madagascar, Bourbon.—*Vismia sessilifolia*, Pers. ♄ Guiana.—*V. reticulata*, Choisy. ♄ Guiana.—*V. guianensis*, Pers. ♄ Guiana.—*V. rufescens*, Pers. ♄ Guiana.—*V. brasiliensis*, Choisy. ♄ Brazil.—*V. cayennensis*, Pers. ♄ Cayenne.—*Norysca mysorensis*, Arn. ♄ Mysore, Neelgherry.—*N. Hookeriana*, Wight. ♄ Peninsula of India.—*Brathys japonica*, Wight. ♄ Khassya Mountains, Martaban.—*B. Wightiana*, Wight. ♄ Neelgherry.—*? Ochranthe arguta*, Lindl.; B. Reg. 21, t. 1819. ♄ China.

ORDER LVI.—TERNSTRÖMIACEÆ, DC.—Lindl. Nat. Syst. p. 79.

Trees or shrubs, according to Lindl., forming 28 genera, to which our materials refer 132 species: 56 for S. America, Mexico and the W. Indies; 57 for the E. Indies; 13 for China and Japan; 4 for N. America; and 1 for Guinea. Of the E. Indian forms, chiefly discovered in Java, Ceylon, both Peninsulas of India, the Khassya Mountains, Assam, and Nepal, 1 belongs to *Cochlospermum*; 9 to *Ternströmia?* 1 to *Anneslea*; 1 to *Adinandra*; 9 to *Eurya*; 4 to *Cleyera*; 12 to *Saurauja*; 9 to *Gordonia*; 7 to *Camellia*; 1 to *Thea*; 2 to *Schina*; — to *Pyrenaria*; and 1 to *Reinwardtia*, Geeria. Bl. as perhaps not distinct, (*Wight.*) is here joined to Eurya.

The most remarkable plant of the tribe is the *Tea*, of which by far the best information will be found in *W. Griffith's Report on the Tea-plant of Upper Assam.*

ANNESLEA, Wall. (*Pl. as. rar.* 1, *t.* 5.)

1. *fragrans*, Wall. (*l. c.*) ♄ Moulmein. Fl. smallish, whitish-yellow, fragrant.—Introduced into H. C. G. ?

EURYA, Thunb. (*DC. pr.* 1, *p.* 525 ;—*W. and A. pr.* 1, *p.* 86.)

1. *fasciculata*, Wall. (*Cat.*) ♄ Silhet.—Has been introduced into H. C. G. fl. ?

SAURAUJA, Willd. (*DC. pr.* 1, *p.* 525.)

1. *fasciculata*, Wall. (*Pl. as. rar.* 2, *t.* 148.) ♄ Nepal. Fl. smallish, white, rose-coloured, slightly sweet-scented. Introduced into H. C. G. Fl. ?
2. *Roxburghii*, Wall. (Ternströmia serrata, *Roxb. fl. ind.* 2, *p.* 521.) ♄ Sylhet. Fl. small, rose-coloured. In H. C. G. fl. April and May ; fr. July and Aug. (*Roxb.*)

GORDONIA, Ellis, (*DC. pr.* 1, *p.* 528 ;—*W. and A. pr.* 1, *p.* 87.)

1. *integrifolia*, Roxb. (*H. B. p.* 33,—*fl. ind.* 2, *p.* 572.—G. Wallichii, *DC. pr.* 1. *p.* 528.) L. ♄ Khassya Mountains. Has been introduced into H. C. G. Fl. ?
2. *floribunda*, Wall. Cat. Martaban, Chappedong, Tavoy. Has been introduced into H. C. G. Fl. ?

CAMELLIA, L. (*DC. pr.* 1, *p.* 529.)

1. *Kissi*, Wall. (*Pl. as. rar.* 3, *t.* 256 ;—*DC. pr.* 1, *p.* 529.) ♄ Nepal.
2. *caudata*, Wall. (*Pl. as. rar.* 3, *p.* 36.) ♄ Khassya Mountains.

} In H. C. G. Fl. ?

THÉA, L. (*DC. pr.* 1, *p.* 530.)

1. *chinensis*, Sims. (*DC. l. c.*)
   β. *Bohea*, (*B. M.* 25, *t.* 998.) ♄ China. In H. C. G. fl. C. S. (*Roxb.*)

COCHLOSPERMUM, Kth. (*DC. pr.* 1, *p.* 527 ;—*W. and A. pr.* 1, *p.* 87.)

1. *Gossypium*, DC. (*l. c.* ;—*W. and A. l. c.* ;—*J. Grah. Cat. B. pl. p.* 22. —Bombax Gossypium, L. *Roxb. fl. ind.* 3, *p.* 169.) ♄ Travancore, Coromandel, Hurdwar. Fl. large, bright-yellow, March and April ; fr. R. S. The tree yields the gum, called *Kuteera*, which in the N. W. Provinces of India is substituted for Tragacanth. (*Royle.*)

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* *Eurya Wightiana*, Wall, Wight. ill. 1, t. 38. ♄ Peninsula of India. *E. tristyla*, W. and A. ♄ Peninsula of India.—*E. chinensis*, R. Br. ♄ China.—*Laplacea speciosa*, H. B. and Kth. ♄ S. America.—*Ventenatia glauca*, Beauv. ♄ Benin in Africa.—*Cochlospermum insigne*, A. St. Hil. ♄.—*C. serratifolium*, DC. ♄ Mexico.—*C. vitifolium*, Spreng. ♄ N. Spain.—*C. tinctorium*, R. Br. ♄ Senegambia.—*Archytea triflora*, Mart. ♄ Brazil.—*Mahurea palustris*, Aubl. ♄ Guiana, Brazil.—*Marila racemosa*, Swz. ♄ W. Indies.—*Kielmeyera corymbosa*, Mart. Brazil.—*K. rosea*, Mart. Brazil.

ORDER LVII.—ACERACEÆ, Lindl. Nat. Syst. 1, p. 81.

THE SYCAMORE TRIBE.

Trees, under 3 genera, comprising 40 species; 10 from N. America; 9 from Nepal and the Himalayas; 9 from Europe; 6 from Japan; 1 from Iberia; 1 from the Levant; 1 from Tartary; 1 from Mexico; 1 from Cochin-China? and 1 of unknown origin. Of the Indian species, 8 belong to *Acer*, and 1 to *Dobinæa*.

" The species are only known for the sugary sap of Acer saccharinum and others, from which sugar is extracted in abundance, and for their light useful timber." (*Lindl.*)

ACER, L. (*DC. pr.* 1. *p.* 593.)

1. *oblongum*, Wall. (*DC. l. c.*) L. ♄ Nepal. Fl. very small, greenish, March; fr. 0.
2. *lævigatum*, Wall. (*Pl. as. rar.* 2, *t.* 104.) L. ♄ Higher Mountains of Nepal, Kemaon. In H. C. G. Fl. ?

NEGUNDO, Mönch. (*DC. pr.* 1, *p.* 596.)

1. *fraxinifolium*, Nutt. (*DC. l. c.*;—Acer Negundo, *L.*) ♄ N. America. Has been in the garden many years, but does not fl.

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* *Dobinæa vulgaris*, Buch. ♄ Nepal.

ORDER LVIII.—SAPINDACEÆ, Juss.—Lindl. Nat. Syst. p. 81.

THE SOAP-TREE TRIBE.

Trees or shrubs, often climbing and cirrhiferous, seldom climbing herbs. The order contains 43 genera, of which the greater number of species (150) inhabits S. America, Mexico and the W. Indies. One has been found in the southern parts of the United States; 2 in Senegal; 4 in Guinea; 10 in S. Africa; 1 in Madagascar; 9 in Bourbon and Mauritius; 2 in Japan; 4 in China; 2 in Timor; and about 10 in New Holland and the South Sea Islands. Our materials furnish us with only 50 forms for the E. Indies; 2 of *Cardiospermum*; 1 *Sioja*; 9 of *Schmidelia*; 1 of *Harpullia*; 3 of *Baccaurea*; 14 of *Sapindus*; 2 of *Cupania*; 1 of *Hedycarpus*; 10 of *Nephelium*; 1 of *Schleichera*; 2 of *Dodonæa*; 1 of *Eustathes*; and 1 of *Pedicella*.—What may be the amount of species discovered in Java, and of Wall's unpublished Sapindaceæ, we have no means of ascertaining, but the probability is, that they will at least double our Indian forms. Blume's new genera are Irina, Lepisanthes, Mischocarpus; (Cupania, *Lindl.*) and Aphania.

" It is singular that while the leaves and branches of many of these plants are unquestionably poisonous, the fruit of others is valuable as an article of

dessert." (*Lindl.*) To the former belong some species of Paullinia, and, as regards fish, also of Magonia and Serjania ; to the latter Nephelium Lichi and lappaceum, Pierardia sapida and dulcis, Hedycarpus malayanus, Schmidelia dulcis, Sapindus esculentus, Paullinia subrotunda, Cupania sapida, &c. The fruit of several species of Sapindus is used instead of soap.

CARDIOSPERMUM, L. (*DC. pr.* 1, *p.* 601 ;—*W. and A. pr.* 1, *p.* 109.) *Heart-seed.*

1. *Halicacabum*, L. (*DC. l. c.* ;—*W. and A. l. c.* ;—*Roxb. fl. ind.* 2, *p.* 292 ;—*J. Grah. Cat. B. pl. p.* 28 ;—*Wight icon.* 2, *t.* 508 ;—*B. M.* 26, *t.* 1049 ;—*Rheed* 8, *t.* 28 ;—*Rumph.* 6, *t.* 24, *f.* 2.) শিবঝুল *Shibjhool.* নফটকী *Nuphutkee.* ☉ ◡ All over India. Fl. small, white ; and fr. nearly the whole year. *Root* aperient. (*Ainslie.*)
2. *canescens*, Wall. (*pl. as. rar.* 1, *t.* 14 ;—*W. and A. pr.* 1, *p.* 109.) ☉ ◡ Banks of the Irawaddi. Fl. small, white ; and fr. nearly all the year.

PAULLINIA, L. (*DC. pr.* 1, *p.* 604.)

1. *carthaginensis*, Jacq. (*DC. o. c. p.* 606 ;—*Roxb. H. B. p.* 29.) ♄ ◡ S. America. In H. C. G. fl. C. S. (*Roxb.*)

SIOJA, Buch.

1. *sanguinaria*, Buch.—(*Rumph.* 5, *t.* 180.) ◡ Goalpara. Ava. Silhet. Introduced into H. C. G. Fl. ?

SCHMIDELIA, L. (*DC. pr.* 1, *p.* 610 ;—*W. and A. pr.* 1, *p.* 109.)

1. *serrata*, DC. (*l. c.* ;—*W. and A. o. c. p.* 110.—Ornithrophe serrata, *Roxb. Corom.* 1, *t.* 61 ; *fl. ind.* 2, *p.* 266.) রাখালফল *Rakhalphul.* ♄ Peninsula of India. Bengal, (Serampore.) Fl. small, white, R. S ; fr. C. S.—*Root* used by the Telinga physicians in substance to stop diarrhœas. *Fruit* eaten by the Natives. (*Roxb.*)
2. *aporetica*, (Ornithrophe aporetica, *Roxb. fl. ind.* 2, *p.* 264, excl. syn. Forst. ?) ♄ Silhet. Fl. small, yellowish, June and July ; fr. C. S. (*Roxb.*)
3. *glabra*, (Ornithrophe glabra, *Roxb. fl. ind.* 2, *p.* 267, excl. syn. L. and Burm. ?) ♄ Chittagong. Fl. small. In H. C. G. fl. R. S. ; fr. C. S. (*Roxb.*)
4. *villosa, Wight.* (*icon.* 2, *t.* 401. Ornithrophe villosa, *Roxb. fl. ind.* 2, *p.* 265.) ♄ Chittagong. Introduced into H. C. G. in 1810, but had not fl. in 1814.
5. *dentata*, Wall. ♄ Assam. Fl. small, greenish-white, R. S.

SAPINDUS, L. (*DC. pr.* 1, *p.* 607 ;—*W. and A. pr.* 1, *p.* 110.) *Soapberry Tree.*

1. *Saponaria*, L. (*DC. l. c.*) ♄ W. Indies. Fl. small, white, H. S. ; fr. C. S.
2. *laurifolius*, Vahl. (*DC. pr.* 1, *p.* 608 ;—*Roxb. fl. ind.* 2, *p.* 278 ;—*W and A, pr.* 1, *p.* 111 ;—*J. Grah. Cat. B. pl. p.* 29 ;—*Rheed.* 4, *t.* 19.) L. 5 Peninsula of India. Fl. small, white, Dec. ; fr. April.—*Berries* saponaceous, and used by washermen.

3. *emarginatus*, Vahl. (*DC. pr.* 1, *p.* 608 ;—*Roxb. fl. ind.* 2, *p.* 279 ;—*W. and A. pr.* 1, *p.* 111 ;—*Wight. ill.* 1, *t.* 51 ;—*J. Grah. Cat. B. pl. p.* 29.) বড়রিঠা *Buro-ritha.* ♄ Peninsula of India. Bengal. Fl. small, white, Oct. and Nov. ; fr. Feb. and March. *Seeds* used medicinally, and for washing the finer kinds of silk. (*Dr. Gibson.*)
4. *detergens*, Roxb. (*fl. ind.* 2, *p.* 280.) রিঠা *Ritha.* ♄ Bengal. Fl. small, white, Feb. and March ; fr. C. S. *Fruit* used for washing.
5. *rubiginosus*, Roxb. (*Corom.* 1, *t.* 62 ; *fl. ind.* 2, *p.* 282 ;—*DC. pr.* 1, *p.* 608 ;—*W. and A. pr.* 1, *p.* 112 ;—*J. Grah. Cat. B. pl. p.* 29.—S. fraxinifolius, *DC. l. c.*) L. ♄ Both Peninsulas of India. Fl. small, white, March and April ; fr. C. S.—*Timber* large, straight, strong, durable. (*Roxb.*)
6. *polyphyllus*, Roxb. (*H. B. p.* 29.) ♄ Pegu. Fl. small, greenish-white, March ; fr. 0.
7. *undulatus*, Wall. MSS. ♄ Native place ? Fl. small, whitish, Dec. ; fr. 0.
8. *acuminatus*, Wall. (*Royle ill. p.* 139.) ♄ Deyra-Dhoon and other Himalayan valleys, Bechiaco in Nepal, Khassya Mountains.—In H. C. G. Fl. ?
9. *fruticosus*, Roxb. (*fl. ind.* 2, *p.* 283 ;—*J. Grah. Cat. B. pl. p.* 29.) ♄ Moluccas. Fl. small, rose-coloured, March ; fr. May and June.
10. *Danura*, (Scytalia Danura, *Roxb. fl. ind.* 2, *p.* 274.) দানুরা *Danoora.* ♄ Soonderbuns. Fl. small, pale rose-coloured, H. S.
11. *angustifolius*, Wall. ♄ Khassya Hills. Introduced in 1829.

CUPANIA, Plum. (*DC. pr.* 1, *p.* 612 ;—*W. and A. pr.* 1, *p.* 112.)

1. *canescens*, Pers. (*DC. o. c. p.* 613 ;—*W. and A. o. c. p.* 113 ;—*J. Grah. Cat. B. pl. p.* 29.—Molinæa canescens, *Roxb. Corom.* 1, *t.* 60 ; *fl. ind.* 2, *p.* 243.—Sapindus tetraphyllus, *Vahl.* ;—*DC. pr.* 1, *p.* 608.) ♄ Circars, Kandalla, in ravines, Koosur Ghaut. Fl. small, white, March.—Wood white, not so serviceable as that of Sapindus rubiginosus, *Roxb.*
2. *lævis*, Pers. (*DC. pr.* 1, *p.* 613.—Molinæa lævis, *Willd.* ;—*Roxb. fl. ind.* 2, *p.* 244.) ♄ Bourbon. Mauritius. Fl. small, white, March.
3. *Roxburghii*, Wight. (*icon.* 2, *t.* 402.—Schleichera pentapetala, *Roxb. fl. ind.* 2, *p.* 275.) L. ♄ Silhet. Fl. small, greenish-yellow. In H. C. G. fl. H. S. ; fr. Aug. and Sept. (*Roxb.*)
4. *sapida*, Cambess. (Blighia sapida, *Kön. ann. bot.* 1806. 2, *t.* 16, 17 ; —*DC. pr.* 1, *p.* 609 ;—*Roxb. H. B. p.* 29 ;—*J. Grah. Cat. B. pl. p.* 30.) ♄ Guinea. Cultivated in India. Fl. small, greenish-white. May and June ; fr. C. S.—*Fruit* much esteemed in Guinea and the W. Indies.
5. *madagascariensis*, G. Don. (Tina madagascariensis, *DC. pr.* 1, *p.* 614.) ♄ Madagascar. Fl. 1837.
6. *alternifolia*, Willd. (*Lam. ill. t.* 305. *f.* 2.) ♄ Mauritius.

HARPULLIA, Roxb. (*Spreng. syst. c. p. p.* 51.)

1. *cupanioïdes*, Roxb. (*Spreng. o. c. p.* 92;—*Roxb. fl. ind.* 1, *p.* 645; *ed. Carey*, 2, *p.* 442.) ♄ Chittagong. Fl. small, yellowish, H. and R. S.

BACCAUREA, Lour. (*Spreng. syst.* 2, *p.* 174. *No.* 1787.)

1. *Pierardi*, Buch. (B. ramiflora, *Lour. Coch.* 2, *p.* 661? excl. syn. Rumph. 3, t. 9.—Pierardia sapida, *Roxb. fl. ind.* 2, *p.* 254.) ♄ Tippera, Ava, Cochin-China. Fl. small, yellow, Feb.; fr. May. *Aril* subacid, edible. (*Roxb.*)
2. *dulcis*, Wall. (Pierardia dulcis, Jack; *Linn. Trans.* 14, *p.* 120;—*Spreng. syst.* 2, *p.* 243.) ♄ Sumatra. Penang. Introduced in 1822.

NEPHELIUM, L. (*W. and A. pr.* 1, *p.* 113.)

1. *Lichi*, W. and A. (*l. c.*—*Wight icon.* 1, *t.* 43;—*J. Grah. Cat. B. pl. p.* 29.—Euphoria Litchi, *Desf.*;—*DC. pr.* 1, *p.* 611.—E. punicea, *Lam. ill. t.* 306.—Litchi chinensis, *Sonner. it. t.* 129.—Scytalia chinensis, *Gärtn. fr. t.* 42. *f.* 1.—S. Lichi, *Roxb. fl. ind.* 2, *p.* 269.—Dimocarpus Lichi, *Lour.*—Sapindus edulis, *Ait.*) লিচি *Lichi.* ♄ China. Cultivated in India &c. Fl. small, greenish-white, Feb. and March; fr. April and May.
2. *rimosum*, W. and A. (*pr.* 1, *p.* 113. *annot.*—Scytalia rimosa, *Roxb. fl. ind.* 2, *p.* 271.) L. ♄ Silhet. Fl. small, greenish.—In H. C. G. fl. March and April; fr. August. (*Roxb.*) *Fruit* edible. (*Roxb.*)
3. *lappaceum*, L. (Euphoria Nephelium, *DC. pr.* 1, *p.* 612.—Scytalia Ramboutan, *Roxb. fl. ind.* 2, *p.* 271.—Dimocarpus crinitus, *Lour.*) Commonly called *Ramboutan*. ♄ Malay Islands. Introduced into H. C. G. in 1798, but had not fl. in 1814.
4. *Longan*, Cambess. (*W. and A. pr.* 1, *p.* 113;—*J. Grah. Cat. B. pl. p.* 29.—Euphoria Longana, *Lam.*—*DC. pr.* 1, *p.* 611;—*B. Reg.* 20. *t.* 1729.—Scytalia Longan, *Roxb. fl. ind.* 2, *p.* 270.—Dimocarpus Longan, *Lour.*) আশফল *Ashphul.* ♄ China, Cochin-China, both Peninsulas of India, Khassya Mountains, &c. Fl. small, yellow-white, Feb. and March; fr. April and May.—*Aril* of the fruit not very grateful, but reckoned wholesome.—*Wood*, as well as that of *No.* 1, hard, close-grained, and white. (*Roxb.*)
5. *rubrum*, Wight. (*Icon.* 1, *t.* 24-25.—Scytalia rubra, *Roxb. fl. ind.* 2, *p.* 272.) ♄ Silhet. Fl. small, dark purplish-red, Feb. and March; fr. April and May. *Aril* eaten by the Natives. (*Roxb.*)
6. *verticillatum*, Wall. (Scytalia verticillata, *Roxb. fl. ind.* 2, *p.* 273. Euphoria verticillata, *Lindl.*;—*B. Reg.* 13, *t.* 1059.) ♄ Moluccas. Fl. small, yellowish, reddish, R. S.; fr. —
7. *variabile*, Wall, Khassya Mountains. In H. G. C.

SCHLEICHERA, Willd. (*W. and A. pr.* 1, *p.* 114.)

1. *trijuga*, Willd. (*W. and A. l. c.*;—*Roxb. fl. ind.* 2. *p.* 277;—*J. Grah. Cat. B. pl. p.* 29.—Melicocca trijuga, *Juss.*;—*DC. pr.* 1, *p.* 615. Cussambium pubescens, *Buch.*—Stadmannia trijuga, *Spreng. syst.*

2, *p.* 243.—Schleichera pubescens, *Roth.* Melicocca? pubescens, *DC. l. c.*—Koon; *Gärtn. fr.* 2. *t.* 180.) ♄ Coromandel. The Ghauts. Salsette. Fl. small, greenish, Feb. and March; fr. May and June. —The Natives eat the fruit, and also make oil from it. (*J. Grah.*)

Melicocca, L. (*DC. pr.* 1, *p.* 615.)

1. *bijuga*, L. (*DC. l. c.—Roxb. H. B. p.* 29.) *Genip Tree* of the W. Indies. ♄ Jamaica, &c. Fl. small, greenish, Feb. and March; fr. —

Kölreutera, Laxm. (*DC. pr.* 1. p. 616; not Murr.)

1. *paniculata*, Laxm. (*DC. l. c.; B. R.* 4, *t.* 330. Sapindus chinensis, *L. fil.*) ♄ China. Fl. small, deep yellow. Has been introduced into H. C. G. Fl.?

Cossignia, Commers. (*DC. pr.* 1, *p.* 614.)

1. *borbonica*, DC. (*l. c.*—C. pinnata, *Lam. dict.* 2, *p.* 132. *ill. t.* 256. C. triphylla, *Lam. l. c.*) ♄ Bourbon. Fl. small, white, Dec.; fr. 0.

Dodonæa, L. (*DC. pr.* 1, *p.* 616;—*W. and A. pr.* 1, *p.* 114.)

1. *Burmanniana*, DC. (*l. c.;—W. and A. l. c.;—Wight. ill. t.* 52;—*J. Grah. Cat. B. pl. p.* 30. D. angustifolia, *Roxb. fl. ind.* 2, *p.* 256; *Willd.?*—Ptelea viscosa, *Burm. ind. p.* 36;—*Burm. zeyl. t.* 23;—*Rumph.* 4, *t.* 50.) ♄ Coromandel. Pulney Mountains. Kandalla Ghaut. Hilly parts of the Concan. Belgaum. Fl. small, greenish, R. S; fr. C. S.
2. *dioeca*, Roxb. (*fl. ind.* 2, *p.* 256;—*DC. pr.* 1, *p.* 617.) ♄ Hindoosthan. Fl. small, greenish. In H. C. G. fl. R. S; fr. C. S. (*Roxb.*)

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* *Cardiospermum microcarpum*, H. B. Kth. ♃. Orinoco.—*C. molle*, H. B. Kth. ♃. Mexico.—*C. grandiflorum*, Swz. ♄ Jamaica.—*Urvillea ferruginea*, Lindl.; B. Reg. 13, t. 1077. ♃. ◡ Brazil.—*Serjana sinuata*, Schum. ♄ ◡ W. Indies.—*S. acapulcensis*, H. B. and Kth. ♄ ◡ Mexico.—*S. divaricata*, Schum. ♄ ◡ Jamaica.—*Toulicia guianensis*, Aubl. ♄ Guiana.—*Paullinia Cucuru*, L. ♄ ◡ W. Indies.—*P. pinnata*, L. ♄ ◡ Brazil, Mexico, W. Indies.—*P. tetragona*, Aubl. ♄ ◡ Guiana. —*P. barbadensis*, Jacq. ♄ ◡ W. Indies.—*Sapindus stenopterus*, DC. ♄ St. Domingo.—*Talisia guianensis*, Aubl. ♄ Guiana.—*Schmidelia occidentalis*, Swz. ♄ Hayti.—*S. guaranitica;* St. Hil. ♄ Brazil.—*Matayba guianensis*, Aubl. ♄ Guiana.

SUB-ORDER?—MILLINGTONIEÆ,—Lindl. Nat. Syst. p. 83.

A small tribe, with 1 genus, and 6 species, all arboreous, and natives of Nepal, the Khassya Mountains, the Neelgherries, and Ceylon.—Properties unknown.

Millingtonia, Roxb. (*W. and A. pr.* 1, *p.* 115.)

1. *simplicifolia*, Roxb. (*Corom.* 3, *t.* 254;—*fl. ind.* 1. *p.* 103; *ed. Carey.*

1, *p.* 102;—*W. and A. l. c.*) ♄ Madura, Khassya Mountains, Nepal. Fl. minute, yellow, Feb. and March; fr. July and Aug.

2. *pinnata*, Roxb. (*fl. ind.* 1, *p.* 104;—*ed. Carey*, 1, *p.* 103.) ♄ Silhet. Fl. small, white.—In H. C. G. fl. April. (*Roxb.*)
3. *pungens*, Wall. ♄ Neelgherries, Nepal, Khassya Hills.

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* *M. dilleniæfolia*, Wall. ♄ Simla. Nepal.—*M. Arnottiana*, Wight. ill. 1, t. 53. ♄ Ceylon. Neelgherries.

ORDER LIX.—ÆSCULACEÆ,—Lindl. Nat. Syst. p. 84.

THE HORSE-CHESNUT TRIBE.

Trees or shrubs, of 4 genera, and 14 species: 9 from N. America; 2 from Nepal and the Khassya Mountains; 1 from N. India; (*DC.*) and 2 of unknown origin.—"The bulky seed of *Pavia indica*, containing a large proportion of fecula, though combined with some bitter principle, is eaten in the Himalayas, as those of the Horse Chesnut (*Æsculus Hypocastanum*, L.) have been in other parts of the world, in times of famine." (*Royle.*) The bark of the latter has been used as a febrifuge, but with little success. Pavia, Boerh. (*DC. pr.* 1, *p.* 598.)

1. *indica*, Colebr. L. ♄ Kemaon, Sirmore, Gurhwal, Kunawar; alt. 8000—10,000 f.
2. *khassyana*, (P. punduana, Wall. Cat.) ♄ Khassya Mountains; alt. 4500 f.—Does not exist at Pundua, (*Griff.*) Both of these trees have been introduced into H. C. G. Fl.?

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* *Pavia macrostachya*, Herb. amat. t. 212. (Macrothyrsus?) ♄ Banks of the rivers of Georgia.

ORDER LX.—POLYGALACEÆ,—Lindl. Nat. Syst. p. 84.

THE MILK-WORT TRIBE.

Herbs or shrubs, rarely climbing or arboreous, ranged under 15 genera. DC. pr. and Spreng. syst. enumerate 92 species for S. America, Mexico and the W. Indies; 22 for N. America; 11 for Europe; 10 for New Holland and Van Diemen's Land; 4 for Guinea; 3 for Siberia; 2 for Japan; 2 for China; 1 for Arabia; 1 for Madagascar; 1 for the Canaries; and 1 for Armenia. The S. African forms amount to 100, (*Harvey*); and the E. Indian to 49. Of the latter, our materials furnish 29 of *Polygala*; 6 of *Salomonia*; 11 of *Xanthophyllum*; 1 of *Soulamea*; and 2 of *Securidaca*; —all, with a few exceptions, inhabiting mountainous or hilly places in Nepal, the Khassya Mountains, both Peninsulas of India, Ceylon, Java and the Moluccas.

The chief characteristic of the order is bitterness, but its qualities have not been thoroughly examined, and the praise which was formerly bestowed on the medicinal powers of some, has, in most cases, been found to be undeserved. Even Polygala Senega is now comparatively seldom used in diseases of the chest, and that only in chronic catarrhs, where all inflammation has ceased.

POLYGALA, L. (*DC. pr.* 1, *p.* 321;—*W. and A. pr.* 1, *p.* 36.)

1. *myrtifolia*, L. (*DC. o. c. p.* 322;—*B. Reg.* 8. *t.* 669.) ♄ C. G. Hope. Fl. largish, pale rose-coloured, purple-veined, nearly the whole year; fr. 0.
2. *telephioïdes*, Willd. (*DC. pr.* 1, *p.* 332;—*Roxb. fl. ind.* 3, *p.* 218;—*W. and A. pr.* 1, *p.* 36.) ♃. Peninsula of India, Bengal. Fl. small, greenish rose. In H. C. G. fl. R. S.; fr C. S. (*Roxb.*)
3. *ciliata*, L. (*W. and A. pr.* 1, *p.* 38. Salomonia? ciliata, *DC. pr.* 1, *p.* 334.) β. *minor* (P. prostrata, *Willd.*;—*DC. o. c. p.* 333.—P. arvensis, *Roxb. fl. ind.* 3, *p.* 218; not Willd.) মেরাডু *Meradoo.* গারুডু *Garoodoo.* ♃. Peninsula of India, Bengal, (Serampore.) Fl. small, greenish white, with a tinge of rose, R. S.; fr. C. S.

SALOMONIA, Lour. (*DC. pr.* 1, *p.* 333;—*Wight. ill.* 1, *p.* 49.)

1. *cantoniensis*, Lour. (*DC. o. c. p.* 334.) ☉ Canton, Khassya Mountains. Fl. small, greenish rose-coloured; C. S.

XANTHOPHYLLUM, Roxb. (*W. and A. pr.* 1, *p.* 39.)

1. *virens*, Roxb. (*fl. ind.* 2, *p.* 221.) L. ♄ Khassya Mountains, Assam. Fl. small, yellowish-rose-coloured. In H. C. G. fl. Feb. March and April; fr. June and July.—*Wood* said to be remarkably hard, and useful to the Natives. (*Roxb.*)

SECURIDACA, L. (*DC. pr.* 1, *p.* 340.)

1. *scandens*, Buch. (S. paniculata, *Roxb. fl. ind.* 3. *p.* 219; not Lam.) L. ♄◡ Fl. smallish, red. In H. C. G. fl. R. S.; fr. March and April. (*Roxb.*)

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* *Polygala scoparia*, H. B. Kth. ♃. Mexico.—*P. hebeclada*, DC. ♄ Brazil.—*P. oxyphylla*, DC. ♄ Brazil.—*P. arillata*, Buch. ♄ Neelgherries, Khassya Mountains.—*P. crotalarioïdes*, Buch. ♄ Mussooree.—*Bredemeyera floribunda*, Willd. ♄ Caracas.—*Securidaca virgata*, Swz. ♄ ◡ Jamaica.—*S. volubilis*, L. ♄ ◡ S. America.—*S. hebeclada*, DC. ♄ ◡ Brazil.—*S. paniculata*, Lam. ◡ ♄ Cayenne.—*Xanthophyllum flavescens*, Roxb. ♄ Chittagong.—*X. angustifolium*, Wight. ill 1, t. 23. ♄ Courtallum.—*X. Roxburghianum*, Wight. ♄ Courtallum.

ORDER LXI.—KRAMERIACEÆ, Mart.—Lindl. Nat. Syst. p. 87.

Undershrubs, of 1 genus, and 8 species, natives of S. America, Mexico, and the W. Indies.—"The genus is of an extremely anomalous structure, and remarkable for its tonic and excessively astringent qualities.

Its root is sold in Europe under the name of *Ratanhia*, and is one of the substances which, in conjunction with gum Kino, is used for adulterating port wine in England." (*Lindl.*)

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* *Krameria ixina*, L. ♄ Cumana, St. Domingo.—*K. pauciflora*, Moç and Sesse. ♃. Mexico.—*K. triandra*, Ruiz and Pav. ♄ Peru.

ORDER LXII.—VOCHYACEÆ,—Lindl. Nat. Syst. p. 87.

Trees, of 8 genera, and 37 species, all " natives of equinoctial America, where they inhabit ancient forests, by the banks of streams, sometimes rising up mountains to a considerable elevation. They are often trees with large spreading heads.—Properties unknown." (*Lindl.*)

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* *Callisthene major*, Mart. ♄ Plains of Brazil.—*Amphilochia cordata*, Mart. ♄ Brazil.—*Vochya guianensis*, Aubl. ♄ Guiana.—*V. emarginata*, Vand. ♄ Brazil.—*V. tetraphylla*, Lindl. ♄ Guiana.—*Qualea rosea*, Aubl. ♄ Guiana.—*Q. cœrulea*, Aubl. ♄ Guiana.—*Erisma floribundum*, Rudg. ♄ Guiana.—*E. violaceum*, Mart. ♄ Brazil.

ORDER LXIII.—ELATINACEÆ,—Lindl. Nat. Syst. p. 88.

THE WATER-PEPPER TRIBE.

Marshy annuals, of 4, or perhaps 5 genera, containing 10 species : 4 European ; 1 S. American ; 1 common to several parts of the world ; 1 S. African ; and 4 Indian. Of the latter, all, with one Nepal exception, are natives of most parts of tropical India and Java ; 2 belong to *Elatine ;* 2 to *Bergia ;* and 1 to *Anisadenia.* Properties unknown.

Bergia, L. (*DC. pr.* 1, *p.* 390.)

1. *verticillata*, Willd. (*DC. l. c. ;—Roxb. fl. ind.* 2, *p.* 456.—B. aquatica, *Roxb. Corom.* 2, *t.* 142.—B. capensis, *L.*—Elatine verticillata, *W. and A. pr.* 1, *p.* 41 ;—*J. Grah. Cat. B. pl. p.* 12.—E. luxurians, *Delile ;—Rheed*, 9, *t.* 78.) লালকেশুরীয়া *Lal-Keshooreeya.* ⊙ Banks of rivers and rice-fields all over India, (Serampore.) Egypt. Fl. very small, white, R. S. ; fr. C. S.
2. *ammannoïdes.* Roxb. (*fl. ind.* 2, *p.* 457 ;—*DC. pr.* 1, *p.* 390.—B. pentandra, *Camb.*—Elatine ammannöides, *W. and A. pr.* 1, *p.* 41 ;—*Wight ill.* 1, *t.* 25 *A. ;—J. Grah. Cat. B. pl. p.* 12.—Lechea verticillata, *Willd. ;—DC. pr.* 1, *p.* 286,) ⊙ Banks of rivers and rice-fields all over India, (Serampore.) Fl. very small, rose-coloured, R. S. ; fr. C. S.

ORDER LXIV.—LINACEÆ,—Lindl. Nat. Syst. p. 89.

THE FLAX TRIBE.

Annual and perennial herbs, undershrubs and shrubs, referred to 2 genera. According to DC. pr. and Spreng. syst., 32 species have been found in Europe; 9 in S. America and Mexico; 6 in N. Africa; 3 in N. America; 2 in Tauria and Iberia; 1 in Dahuria; 1 in Siberia; 1 in Syria; and 1 in New Zealand. The S. African forms amount to 10, (*Harvey*); and the Indian ones to 5, all natives of the Peninsulas, the Khassya Mountains and Nepal, and all belonging to Linum.—The common flax (*Linum usitatissimum*, L.) is found everywhere in the plains, though perhaps only domesticated.

"The tenacity of their fibre, and the mucilage of their diuretic seeds, are striking characters of Linaceæ, which are also usually remarkable for the beauty of their flowers." (*Lindl.*)

LINUM, L. (*DC. pr.* 1, *p.* 423;—*W. and A. pr.* 1, *p.* 134.)

1. *gallicum*, L. (*DC. l. c.*) ⊙ France. Fl. small, yellow, C. S.; fr. H. S.
2. *luteolum*, Bieb. (*DC. pr.* 1, *p.* 424.) ⊙ Tauria. Fl. small, yellow, C. S.; fr. March.
3. *narbonense*, L. (*DC. pr.* 1, *p.* 426.) ⊙ Spain, S. France, Italy. Fl. smallish, blue, C. S.
4. *usitatissimum*, L. (*DC. l. c.*;—*Roxb. fl. ind.* 2. *p.* 110;—*W. and A. pr.* 1, *p.* 134;—*J. Grah. Cat. B. pl. p.* 33;—*E. B.* 19, *t.* 1357.) *Common Flax.* মসিনা *Musina.* ⊙ Europe. Fl. smallish, sky-blue; C. S.; fr. H. S. Much cultivated in N. India for the seeds, from which the natives extract the oil.
5. *angustifolium*, Huds. (*DC. pr.* 1, *p.* 426;—*E. B.* 6, *t.* 381.) ♃. England, France, Italy. Fl. small, sky-blue, C. S.; fr. H. S.
6. *bicolor*, Schousb. (*DC. pr.* 1, *p.* 428.) ⊙ Tangier. Fl. small, yellowish, with a purple-streaked, blue eye, C. S.; fr. H. S.
7. *catharticum*, L. (*DC. l. c.*;—*E. B.* 6, *t.* 382.) *Purging Flax.* ⊙ Europe. Fl. very small, yellowish-white, C. S.; fr. H. S.
8. *tetragynum*, Colebr. (*B. Reg.* 16, under t. 1326.) ♄ Khassya Mountains, Nepal. Fl. largish, sulphur-coloured, C. S.; fr. H. S.
9. *trigynum*, Roxb. (*fl. ind.* 2, *p.* 110;—*DC. pr.* 1, *p.* 425;—*W. and A. pr.* 1, *p.* 134;—*J. Grah. Cat. B. pl. p.* 34;—*B. M.* 27, *t.* 1100.) গুলাসরফ *Goolasruph.* ♄ Mountains of the Peninsula of India. Commonly cultivated in gardens. Fl. large, gold-coloured, C. S.; fr. H. S.

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* *L. Berendieri*, Hook; B. M. 63, t. 3480. ⊙ Texas.—*L. mexicanum*, Humb. B. Reg. 16, t. 1326. ♃. St. Rosa in Mexico.—*L. arboreum*, L.; B. M. 7, t. 234. ♄ Candia.—*L. flavum*, L.; B. M. 9, t. 312. ♃. Austria.—*L. africanum*, L.; B. M. 12, t. 403. ♄. C. G. H.—

L. quadrifolium, L.; B. M. 12, t. 431. ♄ C. G. H.—*L. viscosum*, L.; B. M. 26, t. 1048. ♃. S. Europe.—*L. hirsutum*, L.; B. M. 27, t. 1087. ♃. S. Europe.—*L. anglicum*, Mill.; E. B. 1, t. 40. ♃. England. *L. monogynum*, Forst.; B. M. 64, t. 3574. ♄ N. Zealand.—*L. mysorense*, Heyne. Wight. ill. 1, t. 60. ⊙ Mysore. Mussooree.—*L. repens*, Don. ♄ Nepal, resembles most L. trigynum, Roxb.—*Radiola linoïdes*, Gm. (R. Millegrana, Sm. E. B. 13, t. 893.) ⊙ Europe.

ORDER LXV.—HUGONIACEÆ, Arn.—Lindl. Nat. Syst. p. 89.

The following are the only known species of this shrubby order, which consists of one genus:—

HUGONIA, L. (*DC. pr.* 1, *p.* 522;—*W. and A. pr.* 1, *p.* 72.)

1. *Mystax*, L. (*DC. l. c.*;—*W. and A. l. c.*;—*Wight. ill.* 1, *t.* 32;—*Rheed.* 2, *t.* 19.) ♄ Malabar, Coromandel, Ceylon. Fl. large, yellow. Has been introduced into H. C. G.? Fl.?

* *H. ferruginea*, W. and A. ♄ Ceylon.—*H. serrata*, Lam. ♄ Mauritius.—*H. tomentosa*, Cav. ♄ Mauritius.

ORDER LXVI.—CHLENACEÆ,—Pet. Th.—Lindl. Nat. Syst. p. 90.

Trees or shrubs, of 4 genera, and 8 species, all natives of Madagascar.—Properties unknown.

* *Sarcolæna grandiflora*, Pet. Th.—*Leptolæna multiflora*, Pet. Th.—*Schizolæna rosea*, Pet. Th.—*Rhodolæna altivola*, Pet. Th.

ORDER LXVII.—CISTACEÆ, Lindl. Nat. Syst. p. 91.

THE ROCK-ROSE TRIBE.

Herbs and undershrubs, of 4 genera, and, according to DC., 160 species: 15 N. American; 6 S. American; 3 Syrian, and the rest all from S. Europe, N. Africa, and the Canaries.—Properties unimportant.

HELIANTHEMUM, Tournef. (*DC. pr.* 1, *p.* 266.)

1. *eriocaulon*, Don. (*DC. o. c. p.* 271.) ⊙ Spain, France. Fl. smallish, yellow, Feb. and March; fr. April.
2. *inconspicuum*, Thib. (*DC. l. c.*) ⊙ Spain. Fl. minute, yellow, Feb. and March; fr. April.
3. *ægyptiacum*, Mill. (*DC. o. c. p.* 273.) ⊙ Egypt, Barbary, Spain. Fl. small, white, Feb. and March; fr. April.

* *H. guttatum*, Mill; E. B. 8. t. 544. ⊙ England. S. Europe.—*H. plantagineum*, Pers. ⊙ S. Europe. N. Africa.—*H. punctatum*, Willd. ⊙ France.—*H. ledifolium*, Mill, E. B. 34. t. 2414. ⊙ England.—*H. intermedium*, Thib. ⊙ Spain.—*H. denticulatum*, Thib. ⊙ S. France.—*H. salicifolium*, Pers. ⊙ Spain. Italy.—*H. sanguineum*, Lag. ⊙ Spain.

ORDER LXVIII.—REAUMURIACEÆ,—Lindl. Nat. Syst. p. 91.

Shrubs, of 2 genera, and a few species, belonging to Sicily, Egypt, and Syria.—Properties unimportant.

* *R. vermiculata*, L. ♄ Egypt.

ORDER LXIX.—STERCULIACEÆ, Vent.—Lindl. Nat. Syst. p. 92.

Trees or shrubs, sometimes climbing or twining, referred to 82 genera. DC. pr. and Spreng. syst. enumerate about 115 species for S. America. Mexico and the W. Indies, which, however, have been much increased since 1827; 19 for Bourbon and Mauritius; 3 for Madagascar; 2 for St. Helena; 8 for Tropical Africa; 16 for New Holland and Van Diemen's Land; 2 for Timor; 1 for Arabia; 1 for Persia; and 3 for China. S. Africa exhibits 100 forms, (*Harvey*); and the E. Indies (in a great measure exclusive of Java) 111, viz., 1 of *Isora*; 15 of *Helicteres*; 1 of *Pterygota*; 3 of *Heritiera*; 1 of *Sterculia*; (Endl. and Schott.) 13 of *Sterculia*; (Roxb. Wall. DC.—partly); 9 of *Southwellia*, 2 of *Cavallium*; 2 of *Hildegardia*; 1 of *Scaphium*; 1 of *Erythropsis*; 1 of *Ophelus*; 2 of *Durio*; 1 of *Gossampinus*; 2 of *Salmalia*; 1 of *Pentapetes*; 3 of *Melhania*; 1 of *Trochetia?* 13 of *Pterospermum*; 4 of *Kydia*; 2 of *Wallichia*; 2 of *Abroma*; 2 of *Commersonia*; 8 of *Büttnera*; 1 of *Kleinhovia*; 1 of *Jürgensia*; 3 of *Lochennia*, Arn.; 1 of *Visenia*; and 1 of *Waltheria*.—By far the greater part of these inhabit the two Peninsulas of India, the Khassya Mountains, and Assam. Some few extend to Nepal.—"Excluding Bombaceæ, Java has, according to Blume, 22 species;" (*Wight*,) among which representatives are found of his new genera—Prosthesia, Visemia, and Maranthes.

The whole order is chiefly remarkable for abundance of mucilage and tenacity of fibre. Its peculiar properties will be mentioned under the different species.

A. *Helictereæ*, Schott. and Endl. (*Melet. bot. p.* 30.)

Isora, Schott and Endl. (*l. c.*)

1. *corylifolia*, Schott. and Endl. (*l. C.—Wight icon.* 1, *t.* 150.—Helicteres Isora, *L.*;—*DC. pr.* 1, *p.* 475;—*Roxb. fl. ind.* 3, *p.* 143;—*W. and A. pr.* 1, *p.* 60;—*J. Grah. Cat. B. pl. p.* 16;—*B. M.* 46, *t.* 2061;—

Rheed. 6, *t.* 30;—*Rumph. auct. t.* 17. *f.* 1.) আঁতমোড়া *Antumora.* 5 Extends from one end of India to the other, particularly along the foot of the Himalayas. (Serampore.) Fl. largish, brick-coloured, R. and C. S.; fr. Feb. and March. *Fruit* used by the Natives in dysenteries and bowel-complaints, from mere superstition. At Bombay it is employed medicinally in diseases of the ear. (*Dr. Gibson.*)

HELICTERES, L. (*DC. pr.* 1, *p.* 476; *sect. Orthocarpæa.—Schott. and Endl. o. c. p.* 31.)

1. *hirsuta,* Lour, (*DC. pr.* 1, *p.* 476;—*J. Grah. Cat. B. pl. p.* 16.—H. spicata, *Colebr.*;—*Roxb. H. B. p.* 97.) ♄ Cochin-China, Archipelago of the Eastern Peninsula of India. Fl. largish, dark purplish brown, throughout the year; fr. C. S.
2. *angustifolia,* L. (*DC. pr.* 1, *p.* 476.) ♄ China. Fl. small, white-purple, C. S.; fr. H. S.
3. *elongata,* Wall. Cat. ♄ Taong-Dong. Fl. largish, pale yellow, C. S.; fr. H. S.
4. *virgata,* Wall. Cat. (*G. Don's Mill. dict.* 1, *p.* 508.) ♄ China. Fl. small, C. S; fr. H. S.
5. *pulchra,* Wall. ♄ Burma. Fl. small, C. S.; fr. H. S.

B. *Sterculiëæ,* Schott. and Endl.

PTERYGOTA, Schott. and Endl. (*o. c. p.* 32.)

1. *Roxburghii,* Schott. and Endl. (*l. c.*—Sterculia alata, *Roxb. fl. ind.* 3, *p.* 182.) L. ♄ Silhet. Chittagong. Fl. largish, ferrugineous, streaked with crimson and yellow, Feb. and March; fr. Dec.—*Seeds* at Silhet eaten by the Natives as a cheap substitute for opium. (*Roxb.*)

HERITIERA, Ait. (*DC. pr.* 1, *p.* 484;—*W. and A. pr.* 1, *p.* 63;—*Schott. and Endl. l. c.*)

1. *minor,* Lam. (*DC. l. c.*;—*Roxb. fl. ind.* 3. *p.* 142;—*excl. syn. Rumph.*—H. Fomes, *Willd.*;—*Buch.*;—*DC. l. c.*—Balanopteris minor, *Gärtn. fr.* 2, *t.* 98, f. 2.) সুঁদরী *Soondree.* L. ♄ Soonderbuns. Fl. small, dull orange, March and April; fr. Sept. and Oct. Used in Calcutta, &c., for fire-wood.
2. *littoralis,* Ait. (*DC. pr.* 1, *p.* 484; excl. syn. Rumph.—*Roxb. fl. ind.* 1, *p.* 142;—*W. and A. pr.* 1, *p.* 63;—*J. Grah. Cat. B. pl. p.* 18.—Balanopteris Tothila, *Gärtn. fr.* 2, *t.* 99;—*Rheed.* 6, *t.* 21,) ♄ Mauritius, Peninsula of India. Fl. small reddish.—Introduced into H. C. G. in 1810, but had not fl. in 1814.
3. *macrophylla,* Wall. ♄ Munipore. Fl. small, yellowish, H. S. fr. —
4. *acuminata,* Wall. 5. Hills N. E. of Bengal.

TRIPHACA, Lour.

1. *africana,* Lour. (*fl. cochin.* 2, *p.* 577;—*DC. pr.* 1, *p.* 483,) ♄ Mozambique. C. S. 1838.

STERCULIA, L. (*Schott. and Endl.*)

1. *fœtida,* L. (*DC. pr.* 1, *p.* 483;—*Roxb. fl. ind.* 3, *p.* 154;—*W. and A. pr.* 1, *p.* 63;—*Wight. icon.* 1, *t.* 181, *and* 2, *t.* 364;—*J. Grah.*

Cat. B. pl. p. 18 ;—*Sonner. it.* 2, *t.* 132 ;—*Rumph.* 3, *p.* 1 69, *t.* 107.) জঙ্গলীবাদাম *Junglee-badam.* L. ♄. Moluccas. Both Peninsulas of India, Bengal. Fl. middle-sized, scarletish-sulphur, very fetid. March ; fr. R. S.—*Seeds* roasted, and eaten by the Natives. (*Roxb.*)

Southwellia, Salisb. (*Schott. and Endl. l. c.*)

1. *Balanghas,* Schott. and Endl. (*l. c.*—Sterculia Balanghas, *L. ;—DC. pr.* 1, *p.* 482 ;—*Roxb. fl. ind.* 3, *p.* 144 ;—*W. and A. pr.* 1, *p.* 62 ;—*ill.* 1, *t.* 30 ;—*J. Grah. Cat. B. pl. p.* 17 ;—*Rheed* 1, *t.* 49.) *China Chesnut.* ♄ China. Both Peninsulas of India. Fl. small, flesh-coloured, faintly fragrant, H. S. ; fr. R. S. *Seeds* considered wholesome, and, when roasted, nearly as palatable as chesnuts. (*Roxb.*)
2. *coccinea,* (Sterculia coccinea, *Roxb. fl. ind.* 3, *p.* 151 ;—*DC. pr. p.* 1, 482.) ♃ Silhet, Penang. Fl. largish, greenish-yellow, tinged with rose, C. S ; fr. H. S.
3 *angustifolia,* (Sterculia angustifolia, *Roxb. fl. ind.* 3, *p.* 148 ;—*DC. pr.* 1. *p.* 482 ;—not Jack.) ♄ Nepal, Penang. In H. C. G. fl. March. (*Roxb.*)
4. *parviflora* (Sterculia parviflora, *Roxb. fl. ind.* 3, *p.* 147 ;—*G. Don Mill. dict.* 1, *p.* 516.) ♄ Tippera. Penang. In H. C. G. fl. Feb. March and April. (*Roxb.*)

Cavallium, Schott. and Endl. (*l. c. p.* 33.)

1. *urens,* Schott. and Endl. (*l. c.*—Sterculia urens, *Roxb. Corom.* 1, *t.* 24 ; —*fl. ind.* 3, *p.* 145 ;—*DC. pr.* 1, *p.* 483 ;—*W. and A. pr.* 1, *p.* 63 ;—*J. Grah. Cat. B. pl. p.* 18.) L. ♄ Peninsula of India. Fl. small, greenish, C. S. ; fr. H. S.—Yields a gum resembling Tragacanth. *Seeds* roasted and eaten by the Natives, though they are said to be cathartic.—A kind of coffee may be made of them. (*Dr. Gibson.*) Native guitars are made of the wood of this tree, (*J. Grah.*) which is soft and spongy.
2. *comosum,* Schott. and Endl. (*l. c. ;*—Sterculia comosa, *Wall. pl. as. rar.* 2, *t.* 127.) L. ♄ Amboyna. Fl small, purplish, sweet-scented. In H. C. G. Fl. ?

Hildegardia, Schott. and Endl. (*l. c.*)

1. *populifolia,* Schott. and Endl. (*l. c. ;*—Sterculia populifolia, *Roxb. fl. ind.* 3, *p.* 148 ;—*Wall. pl. as. rar.* 1. *t.* 3 ;—not DC.) ♄ Coromandel. Fl. large, scarlet. Introduced into H. C. G. in 1800, but had not fl. in 1814.

Erythropsis, Lindl. (*Schott. and Endl. l. c.*)

1. *Roxburghiana,* Lindl. (Sterculia colorata, *Roxb. Corom.* 1 *t.* 23 ;—*fl. ind.* 3, *p.* 146 ;—*DC. pr.* 1, *p.* 483 ;—*W. and A. pr.* 1, *p.* 83 ;—*J. Grah. Cat. B. pl. p.* 17.) L. ♄ Peninsula of India, Khassya Mountains, Hurdwar. Fl. large, red, C. S. ; fr. H. S.

Firmiana, Marsigli.

1. *platanifolia,* Schott. and Endl. (*Sterculia platanifolia,* L. suppl. *DC. pr.* 1, *p.* 483.) ♃ China, Japan—R. S. 1838.

Sterculiæ not referable to Schott. and Endl. genera l. c.

α. *villosa*, Roxb. (*fl. ind.* 3. *p.* 153 ;—*DC. pr.* 1. *p.* 483 ;—*W. and A. pr.* 1. *p.* 83 ;—*J. Grah. Cat. B. pl. p.* 18.) ♄ Peninsula of India. Forests from Hurdwar to the Jumna. Fl. smallish, pale yellow-scarlet, March ; fr. 0.

β. *guttata*, Roxb. (*fl. ind.* 3, *p.* 148 ;—*DC. pr.* 1, *p.* 482 ;—*W. and A. pr.* 1, *p.* 62 ;—*Wight. ic.* 2, *t.* 487 ;—*J. Grah. Cat. B. pl. p.* 17 ;—*Rheed.* 4, *t.* 61.) ♄ Peninsula of India. Fl. middle-sized, yellow, inside with purple glands, Dec. ; fr. June. Bark fibres tough, adapted for cordage.—The Natives of the lower coasts of Wynaad contrive to make a sort of clothing from them. (*Roxb.*)

γ. *lanceæfolia*, Roxb. (*fl. ind.* 3, *p.* 150.—S. Roxburghiana, *Wall. pl. as. rar.* 3, *t.* 262.) ♄ Khassya Mountains. Fl. middle-sized, scarlet, C. S. ; fr. H. S. (*Roxb.*)

δ. *acerifolia*, Cunningh. (S. heterophylla, *Cunn. MSS.* ;—S. diversifolia, *G. Don.*) ♄ Fl. middle-sized, whitish-sulphur, somewhat scented like the common Primrose, H. S. ; fr. 0.

ε. *pallens*, Wall. ♄ Nepal.

ρ. *campanulata*, ♄ Khassya Mountains. } Have not fl. here as yet.

η. *ornata*, Wall. MSS. ♄ Burma. In H. C. G.

C. *Bombëæ* (Bombaceæ, Schott. and Endl. *l. c. p.* 34.)

Ochroma, Swz. (*DC. pr.* 1, *p.* 480 ;—*Schott and Endl. l. c.*)

1. *Lagopus*, Swz. (*DC. l. c.*) ♄ Mountains of Jamaica, Portorico, Mexico. &c. In H. C. G. fl. April ; fr. C. S. (*Roxb.*)

Durio, L. (*DC. pr.* 1, *p.* 480 ;—*Schott. and Endl. l. c.*)

1. *zibethinus*, L. (*DC. l. c.* ;—*Roxb. fl. ind.* 3, *p.* 398 ;—*J. Grah. Cat. B. pl. p.* 17 ;—*Linn. Trans.* 7. *t.* 14, 15 and 16.—*Rumph.* 1. *t.* 29.) *Durian Tree.* ♄ Moluccas, Indian Archipelago. Was introduced into H. C. G. in 1809, but had not fl. in 1814.—Fl. largish, white ; fr. remarkably fetid, but its taste considered delicious.—Flowering specimens of a second species have lately been sent us from Malacca, by Dr. Oxley.

Gossampinus, Buch (*Scott. and Endl. l. c.*)

1. *Rumphii*, Schott. and Endl. (*l. c.*—Eriodendron anfractuosum, *DC. α. indicum, pr.* 1, *p.* 479 ;—*W. and. A. pr.* 1, *p.* 61 ;—*J. Grah. Cat. B. pl. p.* 17 ;—*Wight. icon.* 2, *t.* 400.—Bombax pentandrum, *L.* ; *Roxb. fl. ind.* 3, *p.* 165.—Ceiba pentandra, *Gärtn. fr.* 2, *t.* 133 ;—*Rheed.* 3, *t.* 49, 50, 51 ;—*Rumph.* 1, *t.* 80.) শ্বেতশিমুল *Shwet Shimool, White Cotton Tree.* L. ♄ Moluccas, both Peninsulas of India, Bengal, (Serampore,) Hindoosthan. Fl. largish, whitish, Feb. and March ; fr. April and May. The woolly cotton that envelops the seeds of this species, as well of those of the Red Cotton Tree, is much esteemed for stuffing cushions and bedding, being unfit for the loom. The *wood* yields a gum, which is given with spices in certain stages of bowel complaints. (*Ainslie.*)

SALMALIA, Schott. and Endl. (*l. c.*)

1. *malabarica*, Schott. and Endl. (*l. c.*—Bombax malabaricum, *DC. pr.* 1, *p.* 479 ;—*W. and A. pr*, 1. *p.* 61 ;—*Wight. ill.* 1. *t.* 29. *a. b* ;—*J. Grah. Cat. B. pl. p.* 16.—B. heptaphyllum, *Cav.* ;—*Roxb. fl. ind.* 3. *p.* 167 ;—*Corom.* 3, *t.* 247 ;—*Rheed* 3, *t.* 52.) রক্তশিমুল *Rukto Shimool. Red CottonTree*, L. ♄ Extends from one end of India to the other, particularly along the foot of the Himalayas. Fl. very large, deep red, Febr. and March ; fr. April and May. *Bark* of the root used in Java as an emetic. (*Blume.*)—*Wood* light, white, spongy, frequently used in India for floating rafters. (*Royle.*)
2. *insignis*, Schott. and Endl. (*l. c.*—Bombax insigne, *Wall. pl. as. rar.* 1, *t.* 79, 80.) ♄ Yenangheun in Burma. Fl. very large, deep red. Has been introduced into H. C. G. ?

BOMBAX, L. (*Schott. and Endl. l. c.*)

1. *Ceiba*, L. (*DC. pr.* 1, *p.* 478 ;—*Roxb. H. B. p.* 50 ;—*J. Grah. Cat. B. pl. p.* 17.) L. ♄ Jamaica, &c. Was introduced into H. C. G. in 1808, but had not fl. in 1814.—In the W. Indies its immense *trunk* is commonly scooped out and converted into canoes.—*Juice* of the root aperient ; *bark* emetic.

ADANSONIA, L. (*DC. pr.* 1, *p.* 478 ;—*Schott. and Endl. o. c. p.* 36.)

1. *digitata*, L. (*DC. l. c.*;—*W. and A. o. c. p.* 61 ;—*Roxb. fl. ind.* 3, *p.* 164 ; —*J. Grah. Cat. B. pl. p.* 16 ;—*B. M.* 55, *t.* 2791-2.) *Baobab* or *Monkey-Bread Tree*. L. ♄ Senegal. Cultivated in India at Samulcotta, Madras, Negapatam, Bombay, Guzerat, &c. Fl. very large, white, May and June ; fr. C. S.—The largest tree in the world in the diameter of its trunk, which is sometimes 30 feet. Its height is not in proportion. " It is emollient and mucilaginous in all its parts. The *leaves* dried and reduced to powder constitute *Lalo*, a favorite article with the Africans, which they mix daily with their food, for the purpose of diminishing the excessive perspiration to which they are subject in those climates, and even Europeans find it serviceable in cases of diarrhœa, fevers and other maladies. The *fruit* is perhaps the most useful part of the tree. Its pulp is slightly acid and agreeable, and frequently eaten ; while the juice is expressed from it, mixed with sugar, and constitutes a drink, which is valued as a specific in putrid and pestilential fevers." (*Hook ; B. M. l. c.*) The *dried pulp* is mixed with water, and administered, in Egypt, in dysentery. (*Delile.*) Along the sea-coast of Guzerat, the fishermen use the large fruit as a float for their nets. It is also used medicinally by the Natives, who, like the Africans, esteem it cooling. The leaves are eaten with their food, and are said to restrain excessive perspiration. (*J. Grah. l. c.*)

D. *Dombeyëæ*. (Dombeyæ, DC.)

MONTEZUMA, Moç. and Sesse.

1. *specississima*, Moc. and Sesse. (*DC. pr.* 1, *p.* 477.) ♄ Mexico. 1837.

RUIZIA, Cav. (*DC. pr.* 1. *p.* 497.)

1. *lobata*, Cav. (*DC. l. c.*) ♄ Bourbon. Has been introduced into H. C. G. Fl. ?

PENTAPETES, L. (*DC. pr.* 1, *p.* 498;—*W. and A. pr.* 1, *p.* 67.)

1. *phœnicea*, L. (*DC. l. c.*;—*W. and. A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 157; —*J. Grah. Cat. B. pl. p.* 19;—*B. Reg.* 7, *p.* 525;—*Rheed.* 10, *t.* 56; —*Rumph.* 5, *t.* 100, *f.* 1.) দুপহরিয়া *Doopahariya.* ⊙ Both Peninsulas of India, Java, Moluccas, Bengal, (Serampore, &c. Fl. largish, scarlet, R. S.; fr. C. S.

   β. *albiflora.* Fl. white.

DOMBEYA, Cav. (*DC. pr.* 1, *p.* 498;—*W. and A. pr.* 1, *p.* 67.)

1. *palmata*, Cav. (*DC. l. c.*;—*W. and A. o. c. p.* 68;—*J. Grah. Cat. B. pl. p.* 19;—*Wall. pl. as. rar.* 3, *t.* 235.) ♄ Bourbon. Fl. middle-sized, greenish-white, C. S.; fr. H. S.
2. *angulata*, Cav. (*DC. pr.* 1, *p.* 498;—*J. Grah. Cat. B. pl. p.* 19;—*B. M.* 56. *t.* 2905.—D. tiliæfolia, *Roxb. fl. ind.* 3, *p.* 157; Cav. ?—D. cordifolia, *DC. o. c. p.* 199.) ♄ Bourbon. Fl. middle-sized, rose-coloured, C. S.; fr. H. S.
3. *acutangula*, Cav. (*DC. pr.* 1, *p.* 498.) ♄ Bourbon. Introduced into H. C. G. Fl. ?
4. *astrapæoïdes*, Bojer. ♄ Bourbon. Mauritius.

MELHANIA, Forsk. (*DC. pr.* 1. *p.* 499.)

1. *Hamiltoniana*, Wall. (*Pl. as. rar.* 1, *t.* 77.) ♄ Banks of the Irawaddi, Taong Dong. Fl. smallish, sulphur-coloured, C. S.; fr. H. S.

PTEROSPERMUM, Schreb. (*DC. pr.* 1, *p.* 500;—*W. and A. pr.* 1, *p.* 68.)

1. *suberifolium*, Lam. (*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 19.—P. canescens, *Roxb. fl. ind.* 3, *p.* 162.) ♄ Ceylon, Peninsula of India. Fl. large, white, fragrant, March, April and May; fr. Nov. and Dec.
2. *Heynianum*, Wall. (*W. and A. pr.* 1, *p.* 69;—*Wight. icon.* 2, *t.* 489.—P. suberifolium, *Willd.*;—*DC. pr.* 1, *p.* 500, excl. syn. L.;—*Roxb. fl. ind.* 3, *p.* 160;—*B. M.* 37, *t.* 1526; not Lam.—Velago xylocarpa, *Gärtn. fr.* 2, *p. t.* 133, *f.* 2.) ♄ Gingie Hills. Courtallum. Fl. large, white, fragrant,—C. and H. S.; fr. C. S.
3. *acerifolium*, Willd. (*DC. pr.* 1, *p.* 500;—*Roxb. fl. ind.* 3, *p.* 158;—*W. and A. pr.* 1. *p.* 69;—*J. Grah. Cat. B. pl. p.* 20;—*B. M.* 17, *t.* 620.) কনকচাম্পা *Kunuk-champa*, L. ♄ Peninsula of India, Assam. Fl. large, white, fragrant, March, April and May; fr. C. S.
4. *aceroides*, Wall. Cat. ♄ Martaban. Introduced in 1839.
5. *lanceæfolium*, Roxb. (*fl. ind.* 3, *p.* 163;—*DC. pr.* 1, *p.* 500.) L. ♄ Assam. Fl. large, white, fragrant, May and June; fr. C. S.
6. *semisagittatum*, Buch. (*Roxb. fl. ind.* 3, *p.* 160;—*DC. pr.* 1, *p.* 500.) L. ♄. Assam. Fl. large, white, fragrant, March, April, and May; fr. Dec. and Jan.

Astrapæa, Lindl. (*DC. pr.* 1, *p.* 500.)

1. *Wallichii,* Lindl. (*DC. l. c.*;—*B. Reg.* 9, *t.* 691;—*B. M.* 51, *t.* 2503;—*J. Grah. Cat. B. pl. p.* 20.) ♄ Madagascar. Fl. largish, scarletish-red, smelling of cheese, Feb.; fr. 0.

Kydia, Roxb. (*DC. pr.* 1, *p.* 500;—*W. and A. pr.* 1, *p.* 69.)

1. *calycina,* Roxb. (*Corom.* 3, *t.* 215;—*fl. ind.* 3, *p.* 188;—*DC. l. c.*;—*W. and A. o. c. p.* 70;—*J. Grah. Cat. B. pl. p.* 20.) ♄ Peninsula of India. Forests from Hurdwar to the Jumna. Nepal. Fl. smallish, white, R. and C. S.; fr. C. S. Bark mucilaginous, used in the N. W. Provinces of India to clarify sugar. (*Royle.*)
2. *fraterna,* Roxb. (*Corom.* 3. *t.* 216;—*fl. ind.* 3, *p.* 189;—*DC. pr.* 1, *p.* 501;—*W. and A. pr.* 1, *p.* 70.) ♄ Circars. Fl. smallish, white. Has been introduced into H. C. G. Fl.?

E. *Wallichiëæ,* DC. (Eriochlæneæ, Arn.)

Eriolæna, DC. (*pr.* 1, *p.* 501.—Eriochlæna, *Spreng. syst.* 3, *p.* 123.) (Λαῖνα, læna; i. q. Χλαῖνα, *Riemer's Greek Dict.*)

1. *Candollii,* Wall. (*pl. as. rar.* 1, *t.* 64.) L. ♄. Prome Mountains. Fl. largish, yellow. Introduced into H. C. G. Fl.?
2. *Wallichii,* DC. (*pr.* 1, *p.* 501.) ♄ Nepal. Introduced into H. C. G. Fl.?

Wallichia, DC. (*pr.* 1, *p.* 501;—not Roxb.—Microlœna, *Wall. Cat.*;—not R. Br.—*Microchlæna,* W. and A.)

1. *spectabilis,* DC. (*l. c.*;—Microlæna spectabilis, *Wall. Cat.*) ♄ Nepal, Sirmore. Fl. largish, sulphur-coloured, March; fr.—Bark-fibres tough, adapted for cordage.

F. *Büttnereæ,* DC.

Theobroma, L. (*DC. pr.* 1, *p.* 484;—*W. and A. pr.* 1, *p.* 64.)

1. *Cacao,* L. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. H. B. p.* 50;—*J. Grah. Cat. B. pl. p.* 18. Cacao sativa, *Lam. ill. t.* 655. C. minus, *Gärtn. fr.* 2, *t.* 122. *f.* 1.) *Chocolate-nut Tree.* ♄ S. America. Fl. small yellowish-white, R. S.; fr. H. S.

Abroma, L. (*DC. pr.* 1, *p.* 485;—*W. and A. pr.* 1, *p.* 65.)

1. *augustum,* L. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 156; excl. syn. Gärtn.—*J. Grah. Cat. B. pl. p.* 18;—*B. Reg.* 6, *t.* 518.—A angulatum, *Lam. ill. t.* 636-37.—A Wheeleri, *Kön. Rumph.* 4, *t.* 14.) উলটকম্বল *Oolut-kumbul.* ♄ Moluccas, Interior of the Peninsula of India. (*Roxb.*) Fl. middle-sized, dark-purplish brown, H. and R. S.; fr. C. S. *Bark-fibres* tough, adapted for cordage.

Guazuma, Plum. (*DC. pr.* 1, *p.* 485;—*W. and A. pr.* 1, *p.* 64.) *Bastard Cedar.*

1. *tomentosum,* H. B. and Kth. (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 18.—Bubroma Guazuma, Willd.;—*Roxb. H. B. p.* 50.) L. ♄ S. America. Cultivated in India. Fl. small, dark-purple, sweet-scented, H. and R. S.; fr. C. S. *Young bark* abounding in mucilage, and used in Martinique to clarify sugar.

COMMERSONIA, Forst. (*DC. pr.* 1, *p.* 486.)

1. *echinata*, Forst. (*DC. l. c.*;—*Roxb. H. B. p.* 22.—*Rumph.* 3, *t.* 119.) ♄ Moluccas, Penang, Singapore. Fl. small, white, fr. nearly throughout the year.

BÜTTNERA, Löfl. (*DC. pr.* 1, *p.* 486;—*W. and A. pr.* 1, *p.* 65.)

1. *herbacea*, Roxb. (*Corom.* 1, *t.* 29;—*fl. ind.* 1, *p.* 619; *ed. Carey*, 2. *p.* 382;—*DC. pr.* 1, *p.* 486;—*W. and A. pr.* 1, *p.* 65;—*J. Grah. Cat. B. pl. p.* 19;—*Wight. icon.* 2, *t.* 488.) ♃. Circars, Vellore, Bombay. Fl. small, yellowish-red. Introduced, into H. C. G.? Fl.?
2. *pilosa*, Roxb. (*fl. ind.* 1, p. 618; *ed. Carey*, 2, p. 381.) L. ♄◡ Chittagong, Silhet. Fl. small, yellowish-red, Sept.; fr. April.
3. *aspera*, Colebr. (*Roxb. fl. ind. ed. Carey*, 2, *p.* 383.—B. grandifolia, *DC. pr.* 1, *p.* 486.) L. ♄◡ Chittagong. Silhet. Fl. small, yellowish-rose-coloured, C. and H. S.; fr. R. S.
4. *catalpœfolia*, Jacq. (*DC. pr.* 1, *p.* 487.) ♄◡ Caracas. Fl. small, white, Sept. and Oct.
5. *carthagenensis*, Jacq. (*DC. pr.* 1, *p.* 487.) ♄ Carthagena. Fl. small, yellowish-green, and fr. nearly throughout the year.

KLEINHOVIA, L. (*DC. pr.* 1, *p.* 488;—*W. and A. pr.* 1, *p.* 64.)

1. *Hospita*, *L.* (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 141;—*J. Grah. Cat. B. pl. p.* 18;—*Rumph.* 3, *t.* 113.) ♄. Moluccas, Penang, Peninsula of India, S. Concan. Fl. small, pale rose-coloured, somewhat scented, at different periods of the year; fr. C. S.

ACTINOPHORA, Wall. (sine charactere!)

1. *fragrans*, Wall. ♄ Mauritius 1816.

G. *Hermanniëæ*, Juss.

LOCHENNIA, Arn. (*Wight. ill.* 1, *p.* 73. *annot.*)

1. *supina*, Arn. (Riedleia supina, *DC. pr.* 1, *p.* 491;—*W. and A. pr.* 1, *p.* 66.) ♄ Peninsula of India. Fl. small, deep rose-coloured, and fr. throughout the year.
2. *corchorifolia*, Arn. (Riedleia corchorifolia, *DC. pr.* 1, *p.* 401;—*W. and A. pr.* 1, *p.* 66;—*J. Grah. Cat. B. pl. p.* 19. Melochia corchorifolia *L.*;—*Roxb. fl. ind.* 3, *p.* 139;—*Rheed.* 9, *t.* 73.) টিকীওপড়া *Tikee-opra.* বিলপাট *Bil-pata.* ♄ Peninsula of India. Bengal, (Serampore) extending to the most northern parts of India. Fl. small, deep rose-coloured, with a yellow centre,—R. and C. S.; fr. C. S.

RIEDLEIA, Vent. (*DC. pr.* 1, *p.* 490;—*W. and A. pr.* 1, *p.* 65.)

1. *borbonica*, DC. (*l. c. p.* 491.) ♄ Bourbon. Fl. small, whitish, red-veined, and fr. C. S.
2. *guazumæfolia*, Rich. ♄ Mauritius, 1840.

MELOCHIA, L. (*DC. pr.* 1, *p.* 490.)

1. *pyramidata*, L. (*DC. l. c.*) ♄ W. Indies, Brazil. Fl. small, violet, C. S.

VISENIA, Bl. (*G. Don's Mill. dict.* 1, *p*, 538.)

1. *velutina*, (V. umbellata, *Bl.*;—*G. Don. l. c.*;—*Wight. icon.* 2, *t.* 509.

—Riedleia velutina, *DC. pr.* 1, *p.* 491.—Glossospermum velutinum, *Wall. Cat.*) 5 Java, Mauritius. Fl. small, pale rose-coloured, C. S.; fr. H. S.

WALTHERIA, L. (*DC. pr.* 1, *p.* 492.;—*W. and A. pr.* 1, *p.* 66.)

1. *indica*, L. (*DC. o. c. p.* 493;—*W. and A. o. c. p.* 67;—*Roxb. H. B. p.* 49;—*J. Grah. Cat. B. pl. p.* 246;—*Jacq. icon. rar.* 1, *t.* 130.) 5 Both Peninsulas of India, Ceylon, Bengal, Deyra-Dhoon. Fl. small, lemon-coloured, C. S.; fr. H. S.

HERMANNIA, L. (*DC. pr.* 1, *p.* 493.)

1. *alheæfolia*, L. (*DC. l. c.*;—*B. M.* 9, *t.* 307.) ♄ C. G. H. Fl. middle-sized, orange, C. S.
2. *scordifolia*, Jacq. (*DC. o. c. p.* 494.) ♄ C. G. H. Fl. yellow, and fr. throughout the year. (*Roxb. H. B.*)

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* *Quararibea guianuensis*, *Aubl.* ♄ Guiana.—*Myrodia turbinata*, Swz. 5 W. Indies—*Matisia cordata*, H. and B. ♄ N. Granada.—*Helicteres baruensis*, L. ♄ Panama.—*H. mexicana*, H. B. and Kth. 5 Mexico.—*H. jamaïcensis*, Jacq. 5 Jamaica.—*H. verbascifolia*, Lk.; B. Reg. 11, t. 903. 5 Brazil.—*H. ferruginata*, Lk. 5 Brazil.—*Isora grewiæfolia*, Endl. ♄ Timor.—*Reevesia thyrsoïdea*, Lindl.; B. Reg. 15, t. 1236. 5 China.—*Southwellia nobilis*; Salisb. ♄ India.—*S. versicolor*, Endl. (Sterculia versicolor, Wall. pl. as. rar. 1, t. 59.) 5 Segaen.—*S. lanceolata*, Endl. (Sterculia lanceolata, Cav.; B. Reg. 15, t. 1256.) ♄ China.—*Hildegardia Candollii*; Endl. (Sterculia populifolia, DC.; not Roxb.) ♄ Timor. *H. macrophylla*, Endl. (Sterculia macrophylla, Vent.) ♄ Pondicherry? *Scaphium Wallichii*, Endl. (Sterculia scaphigera, Wall. Cat.) ♄ Martaban.—*Firmiana platanifolia*, Endl. (Sterculia platanifolia, L. fil.) ♄ China.—*Cheirostemon platanoïdes*, H. and B. ♄ N. Spain.—*Ochroma tomentosum*, Willd. ♄ S. America.—*Chorisia crispiflora*, H. B. and Kth. ♄ Brazil.—*Eriodendron leiantherum*, DC. ♄ Brazil.—*Bombax Mungaba*, Mart. ♄ S. America.—*Carolinea insignis*, Swz. ♄ Martinique.—*C. minor*, Sims; B. M. 34, t. 1412. ♄ Mexico.—*Ruisia cordata*, Cav. ♄ Bourbon.—*R. variabilis*, Jacq. ♄ Bourbon.—*Assonia populnea*, Cav. ♄ Bourbon.—*A. viburnoïdes*, DC. ♄ Bourbon. *Dombeya tomentosa*, Cav. 5 Madagascar.—*D. ferruginea*, Cav. 5 Mauritius.—*D. punctata*, Cav. 5 Bourbon.—*D. cannabina*, Hels. and Boj.; B. M. 64, t. 3619. ♄ Madagascar.—*Brotera ovata*, Cav. ⊙ N. Spain.—*Melhania Erythroxylon*, R. Br. (Pentapetes Erythroxylon, Forst, B. M. 25, t. 1000.) 5 St. Helena.—*M. incana*, Heyne. ♄ Mysore.—*M. abutiloïdes*, Arn.; Wight. icon. 1, t. 23. ♄ Peninsula of India.—*Trochetia uniflora*, DC. 5 Bourbon—*T. triflora*, DC. 5 Bourbon.—*Pterospermum rubiginosum*, Heyne. ♄ Courtallum.—*P. reticulatum*, W. and A. ♄ Peninsula of India.—*P. obtusifolium*, Wight. ♄ Courtallum.—*Wallichia quinqueloculars*, (Microchlæna, W. and A.) Pulney Hills.—*Göthea semperflorens*, Nees. and Mart. 5 Brazil.—

G. cauliflora, Nees. and Mart. ♄ Brazil.—*Theobroma guianense*, Willd. ♄ Guiana.—*T. bicolor*, H. and B. 5 N. Granada.—*T. angustifolium*, Moç. and Sessé. ♄ Mexico.—*Abroma fastuosum*, Gärtn. 5 Timor. N. Holland.—*Guazuma ulmifolium* Lam. ♄ W. Indies.—*G. polybotryum*, Cav. ♄ St. Domingo.—*Commersonia platyphylla*, Andr.; B. M. 43, t. 1813. 5 Moluccas.—*Büttnera microphylla*, L. ♄ St. Domingo.—*B. scabra*, L. ♄ S. America.—*Ayenia pusilla*, L. ♃. W. Indies.—*A. magna*, L. ♄ Mexico.—*Melochia tomentosa*, L. ♄ W. Indies.—*Riedleia corymbosa*, DC. ♄ Mexico.—*R. nodiflora*, DC. ♄ Jamaica.—*R. jamaïcensis*, DC. ♄ Jamaica.—*Hermannia hyssopifolia*, L. ♄ C. G. H.—*H. flammea*, Jacq. ♄ C. G. H. (B. M. 33, t. 1349.)—*Mahernia bipinnata*, L.; B. M. 8, t. 277. ♄ C. G. H.—*M. incisa*, Jacq.; B. M. 10, t. 353. ♄ C. G. H.—*M. Burchellii*, Swt. (M. grandiflora, B. Reg. 3, t. 224.) ♄. C. G. H.

ORDER LXX.—MALVACEÆ, Juss.—Lindl. Nat. Syst. p. 95.

THE MALLOW TRIBE.

Herbs, undershrubs, shrubs, rarely climbers, and trees, referred to 36-37 genera. Of species, DC. pr. and Spreng. syst. assign about 260 to S. America, Mexico and the W. Indies; 50 to Europe; 24 to Bourbon and Mauritius; 16 to N. America; 12 to N. Africa; 12 to New Holland and the South Sea Islands; 8 to China; 7 to tropical Africa; 6 to the Levant; 4 to Timor; 4 to the Canaries; 3 to Madagascar; 5 to Arabia; 1 to Persia; 1 to Siberia; and 1 to Caucasus. Forty have been found in S. Africa; (*Harvey*) and, judging from our materials, 130 in the E. Indies, viz. 9 of *Malva;* 1 of *Althæa;* 10 of *Urena;* 4 of *Pavonia;* 2 of *Lebretonia;* 30 of *Hibiscus;* 3 of *Paritium*; 2 of *Decaschistia;* 14 of *Abelmoschus;* 3 of *Thespesia*; 5 of *Gossypium;* 2 of *Lagunea;* 11 of *Abutilon;* and 34 of *Sida.* From these must, however, be deducted 12-41 species, common to other parts of the world. As in Sterculiaceæ, by far the greater part of the order is tropical, a few species only extending to the slope of the Himalayahs.

"The uniform character of this tribe is to abound in mucilage, and to be totally destitute of all unwholesome qualities." (*Lindl.*) The peculiar properties are noticed under the several species.

MALVA, L. (*DC. pr.* 1, *p.* 430;—*W. and A. pr.* 1, *p.* 45.)

1. *americana*, L. (*DC. l. c.*) ⊙ St. Domingo. Fl. small, yellow, Feb. and March; fr. April. Domesticated about Serampore.
2. *polystachya*, Cav. (*DC. pr.* 1, *p.* 430.) ♄ Peru. Has been introduced into H. C. G. Fl. ?
3. *hispanica*, L. (*DC. pr.* 1, *p.* 431.) ⊙ Spain, Barbary. Fl. small, flesh-coloured, C. S.; fr. March.

4. *stipulacea*, Cav. (*DC. l. c.*) ⊙ Spain. Fl. smallish, purple, C. S.; fr. March.
5. *mauritiana*, L. (*DC. pr.* 1, *p.* 432;—*W. and A. pr.* 1, *p.* 45;—*Roxb. fl. ind.* 3, *p.* 181;—*J. Grah. Cat. B. pl. p.* 12.) ⊙ Italy, Spain, Portugal. Fl. largish, dark-purple, Feb. and March; fr. April.
6. *rotundifolia*, L. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. l. c.*;—*E. B.* 16, *t.* 1092.) ⊙ Europe, Madura, Mysore, Persia, Cashmere. Fl. middle-sized, deep rose-coloured, Feb. and March; fr. April.
7. *verticillata*, L. (*DC. pr.* 1, *p.* 433.) ⊙ China. Fl. middle-sized, white, Feb. and March; fr. April.
8. *caroliniana*, L. (*DC. pr.* 1, *p.* 435.) ⊙ Carolina. Fl. middle-sized, red, C. S.; fr. March.

Althæa, L. (*DC. pr.* 1, *p.* 436;—*W. and A. pr.* 1, *p.* 45.)

1. *rosea*, Cav. (*DC. l. c.*;—*Roxb. fl. ind.* 3, *p.* 180;—*J. Grah. Cat. B. pl. p.* 12;—*B. M.* 59, *t.* 3189.) *Hollyhock.* গোলখয়রা *Golkhyra.* ♂ China. Fl. very large, rose-coloured, Feb. and March; fr. April. Is the origin of nearly twenty splendid varieties of border flowers. *Leaves* said to yield a colouring matter, resembling Indigo. (*Lindl.*)

Malachra, L. (*DC. pr.* 1, *p.* 440.)

1. *capitata*, L. (*DC. l. c.*) ⊙ W. Indies. Fl. middle-sized, yellow, R. S.; fr. C. S. Domesticated about Serampore.
2. *heptaphylla*, Fisch. (*DC. pr.* 1, *p.* 441, excl. syn. M. fasciatæ, Ker. B. Reg. 6, t. 467.) ♃. Brazil. Fl. middle-sized, rose-coloured, and fr. nearly the whole year. Stings almost like a Loasa.

Urena, L. (*DC. pr.* 1, *p.* 441;—*W. and A. pr.* 1, *p.* 46.)

1. *lobata*, L. (*DC. l. c*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 182;—*J. Grah. Cat. B. pl. p.* 13;—*B. M.* 58, *t.* 3043;—*Rumph.* 6, *t.* 25. *f.* 2. *A.*) বনওকড়া *Bun-okra.* ♄ Fl. middle-sized, rose-coloured, R. S; fr. C. S. Both Peninsulas of India, Bengal, (Serampore,) Nepal.
2. *sinuata*, L. (*DC. pr.* 1, *p.* 442;—*W. and A. pr.* 1, *p.* 46;—*Roxb. fl. ind.* 3, *p.* 182;—*J. Grah. Cat. B. pl. p.* 13;—U. muricata, *DC. l. c.* U. Lappago, *Sm. ?*—*DC. o. c. p.* 441;—*Rheed.* 10, *t.* 2;—*Rumph.* 6, *t.* 25.—U. heterophylla, *Sm.*;—*DC. o. c. p.* 442;—*Burm. zeyl. t.* 62, *f.* 2.) কঙ্গুয়া *Kungooya.* ♄ Ceylon, Peninsula of India, Bengal, (Serampore.) Fl. smallish, rose-coloured, R. S; fr. C. S.
3. *repanda*, Sm. (*Wight. ill.* 1, *p.* 65;—*DC. pr.* 1, *p.* 441;—*Roxb. fl. ind.* 3, *p.* 182;—*W. and A. pr.* 1, *p.* 46.) ♄ Goomsoor. In H. C. G. fl. Sept. Oct. and Nov.; fr. Dec., Jan. and Feb. (*Roxb.*)
4. *speciosa*, Wall. (*pl. as. rar.* 1, *t.* 26.) ♄ Taong Dong. Fl large, rose-coloured. Has been introduced into H. C. G.?
5. *rigida*, Wall. Cat. Moulmein. In H. C. G. Fl.?
6. *macrocarpa*, Wall. ♄. Burma.

Sida, L. (*W. and A. pr.* 1, *p.* 57.)

1. *angustifolia*, Lam. (*DC. pr.* 1, *p.* 459.) ♄ Bourbon. Fl. small, yellowish, and fr. nearly the whole year.

2. *acuta*, Burm. (*DC. pr.* 1, *p.* 460 ;—*Roxb. fl. ind.* 3, *p.* 171 ;—*W. and A. pr.* 1, *p.* 57 ;—*Wight. icon.* 1, *t.* 95 ;—*J. Grah. Cat. B. pl. p.* 16. —S. lanceolata, *Retz.* ;—*Roxb. o. c. p.* 175 ;—*Rheed.* 10, *t.* 53 ;—*Rumph.* 6, *t.* 18.) করেতা *Kureta.* ♄ Both Peninsulas of India, Bengal, (Serampore.) Fl. smallish, yellow, R. and C. S. ; fr. C. S.—*Root* intensely bitter, and stomachic. (*Ainslie.*)
3. *alba*, L. (*DC. pr.* 1, *p.* 460 ;—*Roxb. fl. ind.* 3, *p.* 174 ;—*W. and A. pr.* 1, *p.* 58.) নাগবলা *Nag-bula.* নাগবাড়্যালা *Nag-barjala.* ♄ Coromandel, Bengal. Fl. small, white, R. and C. S. ; fr. C. S.
4. *carpinifolia*, L. fil. (*DC. pr.* 1, *p.* 461.) ♄. Madeira. Fl. middle-sized, yellow, R. and C. S. ; fr. C. S.
5. *jamaïcensis*, Cav. (*DC. pr.* 1, *p.* 460.) ♄. Jamaica, St. Domingo. Fl. middle-sized, yellow, R. and C. S. ; fr. Feb. and March.
6. *microphylla*, Cav. (*DC. pr.* 1, *p.* 461 ;—*Roxb. fl. ind.* 3, *p.* 170.) ♄ Bengal. Fl. small, yellow, R. and C. S. ; fr. C. S.
7. *cuneifolia*, Roxb. (*fl. ind.* 3, *p.* 170.—Riedleia truncata, *DC. pr*, 1, *p.* 491 ;—*W. and A. pr.* 1, *p.* 66.) ♄. Fl. largish, yellow, R. and C. S. ; fr. C. S.
8. *rhombifolia*, Roxb. (*fl. ind.* 3, *p.* 176.) ♄ Bengal, লালবাড়্যালা *Lal-barjala.* Fl. smallish, yellow, R. and C. S. ; fr. C. S.
9. *rhomboïdea*, Roxb. (*fl. ind.* 3, *p.* 176 ;—*DC. pr.* 1, *p.* 462 ;—*W. and A. pr.* 1, *p.* 57.) শ্বেতবাড়্যালা *Shwet barjala.* ♄ Peninsula of India, Bengal, (Serampore.) Fl. smallish, pale-yellow, R. and C. S. ; fr. C. S. ; " The *bark* of this and the last species yield an abundance of very delicate, flaxy fibres, and might, I think, be advantageously employed for many purposes. When the seed is sown thick in a good soil, the plants grow tall and slender, without branches, and are in every way fit for such purposes." (*Rozb.*)
10. *retusa*, L. (*DC. pr.* 1, *p.* 462 ;—*Roxb. fl. ind.* 3, *p.* 175 ;—*W. and A. pr.* 1, *p.* 58 ;—*Rheed.* 10, *t.* 18 ;—*Rumph.* 6. *t.* 19.) ♄ Peninsula of India, Bengal, (Serampore.) Fl. small, yellow, R. and C. S. ; fr. C. S.
11. *humilis*, Willd. (*DC. pr.* 1, *p.* 463;—*Roxb. fl. ind.* 3, *p.* 171 ;—*W. and A. pr.*1, *p.* 59.) ♃. Both Peninsulas of India, Bengal, (Serampore.) Fl. very small, yellow, and fr. nearly throughout the year.
12. *cordifolia*, L. (*DC. pr.* 1, *p.* 464 ;—*Roxb. fl. ind.* 3, *p.* 177 ;—*W. and A. pr.* 1, *p.* 58 ;—*J. Grah. Cat. B. pl. p.* 16.—S. herbacea, *Cav. DC. o. c. p.* 463.—S. rotundifolia, *Cav.* ;—*DC. o. c. p.* 464 ;—*Rheed.* 10, *t.* 54.) বাড়্যালা *Barjala.* ♄ Both Peninsulas of India, Bengal, (Serampore.) Fl. middle-sized, yellow, R. and C. S. ; fr. C. S. The *mucilage* of this plant, mixed with rice, is used to alleviate dysentery. (*Ainsile.*)
13. *truncata*, Cav. (*DC. pr.* 1, *p.* 471.) ⊙ St. Domingo. Fl. small, yellow ; R. and C. S. ; fr. C. S.
14. *nervosa*, DC. (*pr.* 1, *p.* 465.) ♄ St. Domingo. Fl. small, yellow, and fr. nearly the whole year.

NAPÆA, L. (*Gen. pl. p.* 273.)

1. *lævis*, L. (Sida Napæa, *Cav.*;—*DC. pr.* 1, *p.* 466;—*B. M.* 48, *t.* 2193;—*Roxb. fl. ind* 3, *p.* 175.) ♃. Virginia. Fl. middle-sized, white, R. and C. S.; fr. C. S.

ABUTILON, Mönch. (*W. and A. pr.* 1, *p.* 55.)

1. *polyandrum*, W. and A. (*l. c.*;—*J. Grah. Cat. B. pl. p.* 15.—Sida polyandra, *Roxb. fl. ind.* 3, *p.* 173.—S. persica, *Burm. ind. t.* 47, *f.* 1;—*DC. pr.* 1, *p.* 473.) ⊙ ♂. Neelgherries, Nundidroog, Hills about Parr, Kandalla, &c. Fl. largish, yellow, R. and C. S.; fr. C. S.
2. *periplocifolium*, G. Don. (*W. and A. pr.* 1, *p.* 55.—Sida periplocifolia, *L*;—*DC. pr.* 1, *p.* 467;—*Roxb. fl. ind.* 3, *p.* 142.) ♄ Sumatra, Malay Islands. Fl. very small, yellow, R. and C. S.; fr. C. S.
3. *crispum*, G. Don. (*W. and A. pr.* 1, *p.* 56;—*Wight. icon.* 1, *t.* 68.—Sida crispa, *L*;—*DC. pr.* 1, *p.* 469;—*Roxb. fl. ind.* 3, *p.* 177.) ♃. Coromandel, Gingie Hills. Fl. middle-sized, yellow, R. and C. S.; fr. C. S.
4. *indicum*, G. Don. (*W. and A. pr.* 1, *p.* 56. *α*.—*Wight. icon.* 1, *t.* 12;—*J. Grah. Cat. B. pl. p.* 15.—Sida indica, *L.*;—*DC. pr.* 1, *p.* 471;—*Roxb. fl. ind.* 3, *p.* 179.) *Country Mallow-leaf.* ♂ ♃. Both Peninsulas of India, Bengal, (Serampore.) Fl. largish, orange, R. and C. S.; fr. C. S.
5. *populifolium*, G. Don. (*Mill. dict.* 1, *p.* 503;—A. indicum. *β W. and A. pr.* 1, *p.* 56.—Sida populifolia, *Lam*;—*DC. pr.* 1, *p.* 470;—*Roxb. fl. ind.* 3, *p.* 179;—*Rheed.* 6, *t.* 45;—*Rumph.* 4, *t.* 11.) ♂ ♃. Fl. largish, orange, R. and C. S.; fr. C. S. Moluccas, Peninsula of India, Bengal, (Serampore.)
6. *asiaticum*, G. Don. (*W. and A. pr.* 1, *p.* 56;—*J. Grah. Cat. B. pl. p.* 15.—Sida asiatica, *L.*;—*DC. pr.* 1, *p.* 470;—*Roxb. fl. ind.* 3, *p.* 179.) ♂ Peninsula of India, Bengal, (Serampore.) পেটারী *Petaree.* Fl. largish, orange, R. and C. S.; fr. C. S.

The three last species contain a great deal of mucilage, and are on that account used in the same manner here, as the Mallows and Marsh-mallows in Europe.

7. *graveolens*, W. and A. (*pr.* 1, *p.* 56;—*J. Grah. Cat. B. pl. p.* 15.—Sida graveolens, *Roxb. fl. ind.* 3, *p.* 179;—*DC. pr.* 1, *p.* 473;—*Rumph.* 4, *p.* 29, *t.* 10.) বড়কঙ্গি *Bura-kungi.* ♃. Moluccas. Both Peninsulas of India, Bengal, Hindoosthan. Fl. large, deep orange, C. S.; fr. H. S.
8. *tomentosum*, W. and A. (*pr.* 1, *p.* 56.—Sida tomentosa, *Roxb. fl. ind.* 3, *p.* 178.) ⊙ Peninsula of India, Bengal. Fl. large, light orange, R. and C. S.; fr. C. S.
9. *Avicennæ*, Gärtn. (*fr.* 2, *t.* 135, *f.* 1.—Sida Abutilon, *L*;—*DC. pr.* 1, *p.* 470;—*Roxb, fl. ind.* 3, *p.* 178. excl. syn. Rumph.) ⊙ S. France, Switzerland, Siberia, N. China. Fl. largish, light orange, R. S.; fr. C. S.—Said to be cultivated in the North of China, as a substitute for hemp and flax. (*Roxb.*)

10. *auritum* (Sida aurita, *Wall. Cat.*;—*DC. pr.* 1, *p.* 468;—*B. M.* 51, *t.* 2495.) ♄ Java. Fl. largish, deep orange, and fr. whole year.
11. *molle*, G. Don. (*Mill. dict.* 1, *p.* 503.—Sida mollis, *Ort.*;—*DC. pr.* 1, *p.* 470.—S. grandifolia, *Willd.*;—*B. Reg.* 5, *t.* 360.) ♄ Peru. Fl. large, yellow, and fr. throughout the year.
12. *striatum*, Dicks. (*B. M.* 67, 3840.) ♄ Brazil. Fl. C. S. 1841.

Lagunea, Cav. (*DC. pr.* 1, *p.* 474;—*W. and A. pr.* 1, *p.* 55.)

1. *lobata*, Willd. (*DC. l. c.*;—*W. and A. l. c.*—Solandra lobata, *Murr.*;—*Lam. ill. t.* 580.—Triguera acerifolia, *Cav. diss.* 1, *t.* 11.) ⊙ Dindygul, Ginghie, Monghir. Fl. white, smallish. In. H. C. G. fl. R. S.; fr. C. S. (*Roxb.*) As this genus only differs from Hibiscus by the total absence of an involucel, it is rather singular to observe Hibiscus Solandra, Roxb. fl. ind. 3, p. 197, and H. pumilus, Roxb. o. c. p. 203, quoted, (in W. and A. pr. add. and corrig. p. 448,) as synonymes of Lagunea lobata, Willd.; Roxburgh saying of the former, "exterior calyx minute or wanting," and of the latter "exterior calyx minute and from 6-9 parted." Perhaps the genus Lagunea, has been formed from specimens, in which the involucel had dropped off.

Anoda, Cav. (*DC. pr.* 1, *p.* 458.)

1. *hastata*, Cav. (*DC. o. c.*) ⊙ Mexico. Fl. largish, light blue, C. S.; fr. Feb. and March.
2. *Dilleniana*, Cav. (*DC. l. c.*—Sida cristata, *Curt.*;—*B. M.* 10, *t.* 330, excl. syn.) ⊙ Mexico. Fl. large, deep-rose coloured, C. S.; fr. Feb. and March.
3. *triangularis*, DC. (*pr.* 1, *p.* 459.—Sida deltoidea, *Horn.*) ⊙ Mexico. Fl. largish, light-blue, C. S.; fr. Feb. and March.
4. *acerifolia*, DC. (*l. c.*—Sida hastata, *Sims*;—*B. M.* 37, *t.* 1541. excl. syn.) ⊙ Mexico. Fl. largish, pale-blue, C. S.; fr. Feb. and March.

Pavonia, Cav. (*DC. pr.* 1, *p.* 442;—*W. and A. pr.* 1, *p.* 47.)

1. *Columella*, Cav. (*DC. o. c. p.* 443.) ♄ Bourbon. Fl. largish, white-purplish, C. S.; fr. March.
2. *odorata*, Willd. (*DC. pr.* 1, *p.* 444;—*Roxb. fl. ind.* 3, *p.* 214;—*W. and A. pr.* 1, *p.* 47.—P. sidoïdes, *Horn.*;—*DC. l. c.*) ♃. Gingie, Dindygul, Vendaloore. Fl. middle-sized, rose-coloured, and fr. the whole year. An infusion of the roots is prescribed as a diet-drink in fevers. (*Wight.*)
3. *rosea*, Wall. Cat. ♄ Burma. Fl. middle-sized, rose-coloured, and fr. the whole year.
4. *zeylanica*, Cav. (*DC. pr.* 1, *p.* 444;—*Roxb. fl. ind.* 3, *p.* 214;—*W. and A. pr.* 1, *p.* 47;—*J. Grah. Cat. B. pl. p.* 246.—Hibiscus zeylanicus, *L.*;—*Burm. ind. t.* 48, *f.* 3.) ⊙ Ceylon, Trichinopoly. Fl. middle-sized, whitish, R. S.; fr. C. S.

Achania, Swz. (Malvaviscus, *DC. pr.* 1, *p.* 445.)

1. *Malvaviscus*, Swz. (*B. M.* 49, *t.* 2305.—Malvaviscus arboreus *Cav.*,

—*DC. l. c.*) 5 Jamaica, N. Granada, Mexico. Fl. largish, crimson, C. S ; fr. H. S.

2. *pilosa*, Swz. (Malvaviscus pilosus, *DC. pr.* 1, *p.* 445.) 5 Jamaica. Fl. largish, crimsonish, C. S ; fr. H. S.

Hibiscus, L. (*W. and A. pr.* 1, *p.* 47.)

1. *vesicarius*, Cav. (*DC. pr.* 1, *p.* 453 ;—*W. and A. l. c.* ;—*J. Grah. Cat. B. pl. p.* 13.) ⊙ C. G. H. Peninsula of India. Fl. large, cream-coloured, with a dark-purple eye, C. S ; fr. Feb. and March.
2. *Trionum*, L. (*DC. l. c.*;—*B. M.* 6, *t.* 209 ;—*Roxb. H. B. p.* 52.) ⊙ Italy. Carniolia. C. G. H. Cuddapah in the Peninsula of India. Fl. like those of *No.* 1, C. S. ; fr. Feb.
3. *surrattensis*, L. (*DC. pr.* 1, *p.* 449 ;—*Roxb. fl. ind.* 3. *p.* 205 ;—*W. and A. pr.* 1, *p.* 48 ;—*J. Grah. Cat. B. pl. p.* 13 ;—*B. M.* 33, *t.* 1356;—*Wight. icon.* 1, *t.* 197 ;—*Rheed.* 6, *t.* 44 ;—*Rumph* 4, *t.* 16.) ♃. Moluccas. Both Peninsulas of India. Fl. large, pale sulphur, with a dark-purple eye, R. and C. S. ; fr. Feb. and March.
4. *furcatus*, Roxb. (*fl. ind.* 3, *p.* 204 ;—*DC. pr.* 1, *p.* 449 ;—*W. and A. pr.* 1, *p.* 48 ;—*J. Grah. Cat. B. pl. p.* 246.) ♄. Ghauts. Interior of Bengal. Fl. large, pale sulphur, with a dark purple eye, R. S. ; fr. C. S.—Yields an abundance of strong, white, flaxy fibres, but being very prickly, it is unfit for handling. (*Roxb.*)
5. *bifurcatus*, Cav. (*DC. pr.* 1, *p.* 449 ;—*Roxb. H. B. p.* 51.) ♄. Porto-Rico, Brazil. Fl. large, purplish, (*DC.*) In H. C. G. fl. R. S. ; fr. C. S. (*Roxb.*)
6. *Lindleyi*, Wall. (*pl. as. rar.* 1, *t.* 4 ;—*B. Reg.* 17, *t.* 1395.) ⊙ Segaen, Tavoy, Taong-Dong. Fl. large, deep crimson, with a dark-purple eye, R. and C. S. ; fr. C. S.
7. *radiatus*, Cav. (*DC. pr.* 1, *p.* 449 ;—*Roxb. fl. ind.* 3, *p.* 209 ;—*W. and A. pr.* 1, *p.* 48 ;—*B. M.* 44, *t.* 1911.) ♂ Common in gardens. Native place? Jamaica? Fl. large, pale sulphur, with a dark purple eye, R. and C. S. ; fr. C. S.
8. *aculeatus*, Roxb. (*fl. ind.* 3, *p.* 206.) ⊙ Native Place? Fl. large, sulphur, with a dark purple eye, R. and C. S. ; fr. C. S.
9. *Lampas*, Cav. (*DC. pr.* 1, *p.* 447 ;—*Roxb. fl. ind.* 3, *p.* 197 ;—*W. and A. pr.* 1, *p.* 48 ;—*J. Grah. Cat. B. pl. p.* 13 ;—*Wight. icon.* 1, *t.* 5.) 5 Both Peninsulas of India, Bengal, Hindoosthan, extending to the foot of Himalaya. Fl. large, sulphur, with a dark purple eye, R. and C. S ; fr. C. S.
10. *lunarifolius*, Willd. (*DC. pr.* 1, *p.* 451 ;—*W. and A, pr.* 1, p. 49 ;—*Wight. icon.* 1, *t.* 6.—Hibiscus pruriens, *Roxb. fl. ind.* 3, *p.* 196.) ♂ Dindygul, Segaen, Ava, Taong-Dong. Fl. large, sulphur, with a dark purple eye, H. and R. S ; fr. C. S.
11. *Rosa sinensis*, L. (*DC. pr.* 1, *p.* 448 ;—*Roxb. fl. ind.* 3, *p.* 194 ;—*W. and A. pr.* 1, *p.* 49 ;—*J. Grah. Cat. B. pl. p.* 13 ;—*B. M.* 5, *t.* 158 ;—*B. Reg.* 21, *t.* 1826.) জবা *Juva. Shoe-flower.* 5 China, Mo-

luccas, interior of Hindoosthan. Fl. large, crimsonish, nearly the whole year, fr. 0. Petals astringent, used by the Chinese to blacken their shoes and eyebrows.

β. *rubro-plenus;* double red. (*Rheed.* 2, *t.* 17;—*Rumph.* 4, *t.* 8.)

γ. *flavo-plenus;* double yellow.

δ. *carneo-plenus;* double flesh-coloured.

ε. *luteo-plenus;* double yellowish.

ρ. *variegato-plenus;* double variegated,

12. *liliiflorus*, Cav. β. *hybridus*, (*B. M.* 56, *t.* 2891;—*J. Grah. Cat. B. pl. p.* 13.) ♄ A hybrid plant, derived from H. liliiflorus, (a native of the mountains of Bourbon) whose flowers were fertilized by the pollen of H. Rosa sinensis. Fl. very large, deep rose-coloured, the whole year.

β. *ruber*, fl. deep red.

γ. *luteus*, fl. buff-coloured.

13. *Genevii*, Bojer. (*B. M.* 59, 3144.) ♄ Bourbon, Mauritius, 1835.

14. *syriacus*, L. (*DC. pr.* 1, *p.* 448;—*Roxb. fl. ind.* 3, *p.* 195;—*J. Grah. Cat. B. pl. p.* 246.—H. rhombifolius, *Cav.*;—*DC. o. c. p.* 452.) ♄ Syria, Carniolia. Cultivated in India. Fl. large, purplish-lilac, with a dark-purple eye, R. S.; fr. 0.

β. *pallido-roseus*, fl. pale rose-coloured, with a dark-brown eye. (*B. M.* 3, *t.* 83.)

γ. *roseo-plenus*, double rose-coloured.

ε. *albo-plenus*, double white. শাদাজবা *Sada-juva.*

15. *panduriformis*, Burm. (*fl. ind. t.* 47, *f.* 2;—*DC. pr.* 1, *p.* 455;—*W. and A.* pr. 1, *p.* 50;—*J. Grah. Cat. B. pl. p.* 246.—H. tubulosus, *Cav.*;—*DC. o. c. p.* 447;—*Roxb. fl. ind.* 3, *p.* 196.) ☉ Peninsula of India, Bengal, (Serampore.) Fl. large, sulphur, with a dark purple eye, Oct. and Nov.; fr. Jan. and Feb.

16. *cannabinus*, L. (*DC. pr.* 1, *p.* 450;—*Roxb. Corom.* 2, *t.* 190; *fl. ind.* 3, *p.* 208;—*W. and A. pr.* 1, *p.* 50;—*J. Grah. Cat. B. pl. p.* 13.) ☉ Both Peninsulas of India, Bengal, (Serampore.) মেষ্টাপাট *Mesta-pato.* Fl. large, sulphur, with a dark-brown eye, R. S.; fr. C. S.—*Leaves* acidulous, eaten by the natives as spinach. Fibres of the *bark* used for cordage.

17. *vitifolius*, L. (*DC. pr.* 1, *p.* 450;—*Roxb. fl. ind.* 3, *p.* 200;—*W. and A. pr.* 1, *p.* 50.—excl. H. truncato, Roxb;—*J. Grah. Cat. B. pl. p,* 13;—*Rheed.* 6, *t.* 46.) বনকাপাস *Bun-kapas.* ♂ Both Peninsulas of India, Bengal, (Serampore.) Fl. large, sulphur, with a dark-purple eye, R. and C. S.; fr. C. S.

18. *truncatus*, Roxb. (*fl. ind.* 3, *p.* 200.) ☉ Ceylon. Fl. largish, sulphur, with a dark-purple eye. In H. C. G. fl. R. and C. S.

19. *scandens*, Roxb. (*fl. ind.* 3, *p.* 200.) L. ♄ ◡ Chittagong. Fl. large, pale sulphur, with a dark-brown eye, March; fr. 0.

20. *Patersoni*, Ait. (*DC. pr.* 1, *p.* 454;—*B. Rep.* 4, *t.* 286.—Lagunæa Patersonia, B. M. 20, 769.) ♄ Norfolk Island.

21. *heterophyllus*, Vent. (*DC. pr.* 1, *p.* 450;—*Roxb. fl. ind.* 3, *p.* 213; —*B. Reg.* 1, *t.* 29.) ♃ N. Holland. Fl. large, white, rosy-tinged, with a dark blood-coloured eye, March; fr. 0.

22. *diversifolius*, Jacq. (*Icon. rar.* 3, *t.* 551;—*DC. pr.* 1, *p.* 449;—*Roxb. fl. ind.* 3, *p.* 208;—*B. Reg.* 5, *t.* 381.—H. ficulneus, Cav.; not of others.) ♃ East Africa, Madagascar. Fl. large, primrose-coloured, with a dark blood-coloured eye, C. S.; fr. H. S.

23. *mutabilis*, L. (*DC. pr.* 1, *p.* 452;—*Roxb. fl. ind.* 3, *p.* 201;—*W. and A. pr.* 1, *p.* 51;—*J. Grah. Cat. B. pl. p.* 13;—*B. Reg.* 7, *t.* 589;—*Rheed.* 6, *t*, 38, *t.* 40. *f.* 1, *t.* 42;—*Rumph.* 4, *t.* 9.) ♃ Moluccas. Fl. very large, in the morning white, at noon pale-rose, in the evening deep rose, R. and C. S.; fr. C. S.

β. *plenus*; double-flowered. (*Rheed. t.* 39, *t.* 40, *f.* 2, *t.* 41.) থলপদ্ম *Thulpudmo.*

24. *collinus*, Roxb. (*H. B. p.* 51;—*fl. ind.* 3, *p.* 198.—H. eriocarpus, DC. *pr.* 1, *p.* 452;—*W. and A. pr.* 1, *p.* 51.) ♃ Circars. Fl. very large, pale-rose, with a dark-blood coloured eye, R. and C. S.; fr. C. S.

25. *hirtus*, L. (*W. and A. pr.* 1, *p.* 51;—*J. Grah. Cat. B. pl. p.* 14.—H. Rosa malabarica, *Kön*;—*B. Reg.* 4, *t.* 327.—H. phoeniceus, *Willd.* excl. syn. L. suppl. and H. hirtus, *Cav.*;—*Roxb. fl. ind.* 3, *p.* 194;—*DC. pr.* 1, *p.* 452. *ex pte*;—*Rheed.* 10, *t.* 1.) লালসূর্য্যমণি *Lal-soorgumuni.* ♄ Peninsula of India, Bengal, (Serampore.) Fl. middle-sized, scarlet, R. and C. S.; fr. C. S.

β. *albiflorus*; white-flowered. শ্বেতসূর্য্যমণি *Shwet-soorgumuni.*

26. *micranthus*, L. (*DC. pr.* 1, *p.* 453;—*W. and A. pr.* 1, *p.* 51.—H. rigidus, *L.*;—*Roxb. fl. ind.* 3, *p.* 195.) ♄ Peninsula of India, Silhet, extending as far as Delhi. Fl. small, white, and fr. nearly the whole year. The natives, particularly children, eat the green, tender capsules of both this and the last species. (*Roxb. MSS.*)

27. *palustris*, L. (*B. M.* 23, 882;—*B. Reg.* 17, 1463.) ♄ N. America R. S. 1837.

28. *Sabdariffa*, L. (*DC. pr.* 1, *p.* 453;—*W. and A. pr.* 1, *p.* 52;—*Roxb. H. B. p.* 52;—*J. Grah. Cat. B. pl. p.* 14.) মেষ্টা *Mesta.* The *Roselle* plant, or *Red Sorrel* of the W. Indies. ☉ W. Indies. Cultivated in India. Fl. large, pale, sulphur, with a dark brown eye, R. S.; fr. C. S. From the fleshy, acid, red calyxes are prepared excellent jellies and tart fruits.

ABELMOSCHUS, Medik. (*W. and A. pr.* 1, *p.* 53.)

1. *esculentus*, W. and A. (*l. c.*;—*J. Grah. Cat. B. pl. p.* 14.—Hibiscus esculentus, *L*;—*DC. pr* 1, *p.* 450.—H. longifolius, *Willd.*;—*DC. l. c.*; —*Roxb. fl. ind.* 3, *p.* 210.) রামতরায় *Ramturay* ধেঁরুস *Dhenroos.* ♂ Peninsula of India, Bengal, in a cultivated state. Native Place? Fl. large, sulphur, with a dark-blood-coloured eye. Unripe *fruit* a favorite ingredient in soups, &c.

2. *moschatus*, Mönch (*W. and A. pr.* 1, *p.* 53;—*J. Grah. Cat. B. pl. p.* 14;—*Wight icon.* 2, *t.* 399.—Hibiscus Abelmoschus, *L.*;—*DC. pr.* 1, *p.* 452;—*Roxb. fl. ind.* 3, *p.* 202;—*Rheed.* 2, *t.* 38;—*Rumph.* 4, *t.* 15.) কালকস্তুরী *Kal-kusturee, Musk-Mallow.* ⊙ Moluccas, Java, both Peninsulas of India, Bengal, (Serampore,) extending northwards to the foot of the Himalayas. Fl. large, sulphur, with a dark blood-coloured eye, R. and C. S.; fr. C. S.—Abounds in *mucilage*, which in Upper India is used to clarify sugar. *Seeds* considered cordial and stomachic, used by the Arabs, mixed with coffee. (*Lindl.*)
3. *crinitus*, Wall. (*pl. as. rar.* 1, *t.* 44.) ⊙ *?* Prome. Fl. large, sulphur, with a dark blood-coloured eye. In H. C. G. fl. R. and C. S.; fr. C. S. (*Wall.*)
4. *cancellatus*, Wall. Cat. (Hibiscus cancellatus, *L. fil*;—*Roxb. fl. ind.* 3, *p.* 201.—H. racemosus, *Lindl.*;—*B. Reg.* 11, *t.* 917.—Pavonia cancellata, *Cav.*;—*DC. pr.* 1, *p.* 444.) ⊙ Surinam, Nepal, Kamaon. Fl. large, sulphur, with a dark blood-coloured eye. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)
5. *angulosus*, Wall. (*W. and A. pr.* 1, *p.* 53.—Hymenocalyx variabilis, *Zenk.*) ⊙ Neelgheries. Fl. large, sulphur, with a dark blood-coloured eye. In H. C. G. fl. C. S.; fr. Febr.
6. *rugosus*, Wall. (*W. and A. pr.* 1, *p.* 53.—Hibiscus hirtus, *Buch*;—*Roxb. fl. ind.* 3, *p.* 203, excl. syn. Pluk.) ⊙ Madura Hills. Fl. large, sulphur, with a dark blood-coloured eye. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)
7. *ficulneus*, W. and A. (*pr.* 1, *p.* 53;—*Wight. icon.* 1, *t.* 154;—*J. Grah. Cat. B. pl. p.* 14;—Hibiscus ficulneus, *L.*;—*DC. pr.* 1, *p.* 448.—H. prostratus, *Roxb. fl. ind.* 3, *p.* 208.—Lagunea aculeata, *Cav.*;—*DC. pr.* 1, *p.* 474.) ⊙ Rajmahl Hills, Circars. Fl. white, with a rose-coloured eye. In H. C. G. Fl. R. and C. S.; fr. C. S. (*Roxb.*)
8. *tetraphyllus*, Wall. Cat. (*J. Grah. Cat. B. pl. p.* 14.—Hibiscus tetraphyllus, *Roxb. fl. ind.* 3, *p.* 311;—*DC. pr.* 1, *p.* 448.) ⊙ Woods about Calcutta. Girgaum woods, Bombay. ⊙ Fl. large, yellow, with a dark-purple eye, R. S.; fr. C. S.
9. *strictus*, (Hibiscus strictus, *Roxb. fl. ind.* 3, *p.* 206.) ⊙ Rajmahl Hills. Fl. largish, pure-white, R. S.; fr. C. S. *Bark* abounds in long, glossy, white, fine and strong fibres. In 1801 Dr. Roxb. had forty square yards planted with this species, which yielded thirty-three pounds weight of the naturally very clean fibres.
10. *chinensis*, Wall. Cat. (Hibiscus chinensis, *Roxb. fl. ind.* 3, *p.* 212.) ⊙ China. In H. C. G. fl. R. and C. S.; fr C. S. (*Roxb.*)
11. *pungens*, Wall. Cat. (Hibiscus pungens, *Roxb. fl. ind.* 3, *p.* 213.) ♃ Nepal. Fl. large, deep-yellow. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)
12. *pentaphyllus*, (Hibiscus pentaphyllus, *Roxb. fl. ind.* 3, *p.* 212.) ⊙ China. Fl. large, yellow. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)

13. *Manihot*, Wall. Cat. (Hibiscus Manihot, *L.*;—*DC. pr.* 1, *p.* 448;—*B. M.* 41, *t.* 1702.) 5 Japan, China. Fl. large, sulphur, with a dark blood-coloured eye, R. and C. S.

14. *theiodes*, (Hibiscus sulphureus, *Wall.* not H. B. and Kth.) ⊙ Burma. Fl. large, sulphur, with a dark brown eye, R. and C. S.; fr. C. S.

PARITIUM, St. Hil. (*W. and A. pr.* 1, *p.* 52.)

1. *tiliaceum*, St. Hil. (*W. and A. l. c.*;—*Wight. icon.* 1. *t.* 7;—*J. Grah. Cat. B. pl. p.* 14.—excl. Hibiscus tortuosus, Roxb.—Hibiscus tiliaceus, *L.*;—*DC. pr.* 1, *p.* 454;—*Roxb. fl. ind.* 3, *p.* 192;—*Rumph.* 2, *t.* 73.) 5 Moluccas, Amherst, Travancore, Bombay. Fl. very large, sulphur, with a dark blood-coloured eye, and fr. the whole year.

2. *tortuosum*, Wall. (Hibiscus tortuosus, *Roxb. fl. ind.* 3, *p.* 192. H. tiliaceus, *Lour.*; not L.;—*B. R.* 3, *t.* 232; excl. syn. Rumph.—Novella repens, *Rumph.* 2, *p.* 122;—*Rheed.* 1, *t.* 30) বলা *Bula.* 5 Moluccas; Cochin-China, Soonderbuns. Fl. like those of *No.* 1, H. and R. S.; fr. C. S.—W. and A. pr. 1. p. 52; refer this species doubtfully to *No.* 1.

3. *macrophyllum*, G. Don., (*Mill. dict.* 1, p. 485.—Hibiscus macrophyllus *Roxb. H. B. p.* 51;—*DC. pr.* 1, *p.* 455;—*Wall pl. as. rar.* 1, *t.* 51.) L. ♄ Assam, Penang. Fl. very large, sulphur, with a dark blood-coloured eye, H. and R. S; fr. C. S.—W. and A. pr. 1, p. 50, refer with doubt Hibiscus setosus, Roxb. to Paritium, adding that it seems in no respect distinct from H. macrophyllus, Roxb.

4. *tricuspe*, G. Don. (*W. and A. pr.* 1, *p.* 52;—*J. Grah. Cat. B. pl. p.* 14.—Hibiscus tricuspis, *Cav*;—*DC. pr.* 1, *p.* 453;—*Roxb. fl. ind.* 3, *p.* 202.—H. hastatus, *L. fil. suppl.* 310.) 5 Society Islands. Fl. large, sulphur, with a dark blood-coloured eye, C. S; fr. H. S.

5. *Bealii*, Wall. MSS. ♄ Japan. Introduced in 1840. Has not fl.

THESPESIA, Corr. (*DC. pr.* 1, *p.* 455;—*W. and A. pr.* 1, *p.* 54.)

1. *populnea*, Corr. (*DC. o. c. p.* 456;—*W. and A. l. c.* excl. Hibiscus populneoides, Roxb.;—*Wight icon.* 1, *t.* 8;—*J. Grah. Cat. B, pl. p.* 15, excl. syn. Roxb.—Hibiscus polpulneus, *Roxb. fl. ind.* 3, *p.* 190;—*Rheed.* 1, *t.* 28;—*Rumph.* 2, *t.* 74.) পোরেশ *Poresh.* ♄ Society Islands, Guinea, Courtallum, Singapore, Bengal. Fl. large, sulphur, with a dark blood-coloured eye, R. S.; fr. C. S.—*Wood* used for making rollers, and other purposes, where closeness of grain is required. The *fruit* abounds in a yellow pigment, which might perhaps be turned to some account. (*J. Grah.*)

2. *populneoïdes*, Wall. (Hibiscus populneoïdes, *Roxb. fl. ind.* 3, *p.* 191.) ♄ Coromandel, Bengal. পোরেশপিপ্পল *Poresh-pippul*, Fl. like those of *No.* 1, R. and C. S.; fr. C. S.

GOSSYPIUM, L. (*DC. pr.* 1, *p.* 456;—*W. and A. pr.* 1, *p.* 54.) *Cotton.*

1. *acuminatum*, Roxb. (*fl. ind.* 3, *p.* 186;—*Royle ill. p.* 98;—*Wight. ill.* 1, *t.* 27.) 5 Mountains of Bengal, Malacca. Fl. large, sulphur, and fr. throughout the whole year. This species is not cultivated;

"but well worth trial in different parts of India, as it is indigenous, and desirable on account of the facility with which the wool separates from the naked seeds." (*Royle.*)

2. *obtusifolium*, Roxb. (*fl. ind.* 3, *p.* 183;—*Royle ill. p.* 98.) ♄ Ceylon. In H. C. G. fl. and fr. the whole year, not cultivated.

3. *herbaceum*, L. (*Roxb. fl. ind.* 3, *p.* 184;—*Royle ill. p.* 98, *t.* 23, *f.* 1;—*Wight icon.* 1, *t.* 9 *and* 11;—*Rumph.* 4, *t.* 12.) কাপাস *Kapas.* ♂ ♃. Moluccas. Both Peninsulas of India, Bengal, (Serampore,) Hindoosthan. Fl. large, sulphur, with a dark blood-coloured eye, and fr. nearly the whole year.

   α. *daccanense*; (*Roxb. Corom.* 3, *t.* 269.) *Dacca Cotton.* From this is manufactured the *Dacca Muslin.*

   β. *berarense*; *Berar Cotton.* From this the *Madras*, or *Northern Circar long-cloth.*

   γ. *chinense*; *China-cotton.*

   δ. *cawnporense*; *Cawnpore and Doab-cotton.* (*Royle ill. t.* 23, *f.* 1.)

4. *arboreum*, L. (*Roxb. fl. ind.* 3, *p.* 183;—*Royle ill. p.* 99; *t.* 23. *f.* 2;—*Wight icon.* 1, *t.* 10.) ♄ Egypt, Arabia. India about Pagodas. Celebes. Fl. large, intensely red, with a faint yellowish eye, and fr. the whole year, (*Roxb.*) Its *cotton* is used only for making turbans, (*Royle.*)

5. *religiosum*, Swz. (*Roxb. fl. ind.* 3, *t.* 185;—*Royle ill. p.* 99.) *Nankin Cotton.* ♃. China. Fl. large, yellow. In H. C. G. fl. and fr. the whole year. Does not promise to be profitable. Colour of the wool tawny, and very different from the colour of the cotton-cloth, commonly called Nankeen, which is, no doubt, dyed. (*Roxb.*)

6. *hirsutum*, Swz. (*Roxb. fl. ind.* 3, *p.* 187;—*Royle ill. p.* 100.) ♄ W. Indies. Fl. large, uniformly pale yellow, and fr. the whole year. (*Roxb.*) In the W. Indies it is called *French Cotton*, and seems to be the *green-seeded short staple* or *Upland Cotton* of the Americans. (*Royle.*)

7. *barbadense*, L, (*Roxb. fl. ind.* 3, *p.* 187;—*Royle ill. p.* 100;—*B. Reg.* 1, *t.* 84. *Bourbon* or *Barbadoes Cotton, Wight ill.* 1, *t.* 28 *a. Sea-Island* or *long stapled Cotton, Wight ill.* 1, *t.* 28 *b. Upland Georgian* or *short-stapled Cotton, Wight ill.* 1, *t.* 28 *c.*—G. vitifolium, *Cav. diss.* 6, *p.* 311, *t.* 166.) ♄ W. Indies. Fl. large, yellow, and fr. the whole year.

8. *vitifolium*, Roxb. (*fl. ind.* 3, *p.* 186, not of others.) ♄ Native Place? Fl. large, deep crimson, with a dark-brown eye, and fr. the whole year. Cotton fine, and large in fibre, but does not promise advantage to the cultivator, on account of the scantiness of the crop. (*Roxb.*)

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* *Malope malacoïdes*, L. ⊙ S. Europe.—*M. trifida*, Cav. ⊙ N. Africa.—*Malva prostata*, Cav.; B. M. 51, t. 2515. ♄ S. America.—*M. abutiloïdes*, L.; B. M. 52, t. 2544. ♄ Bahama Islands.—*M. angustifolia*, Ait.; B. M. 55, t. 2839. ♄ Mexico.—*M. lateritia*, Hook; B. M. 67, t. 3846. ♄ Buenos Ayres.—*M. umbellata*, Cav.; B. Reg. 19, t. 1608.

♄ Mexico.—*Althæa coromandeliana*, Cav. (A. flexuosa, Sims.; B. M. 23, t. 892. Scringapatam Hollyhock.) ♂. Peninsula of India.—*A. caribæa*, Sims.; B. M. 44, t. 1916. ♂. W. Indies.—*Lavatera plebeia*, Sims.; B. M. 48, t. 2269. ♃. N. Holland.—*Malachra rotundifolia*, Schrank. ⊙ Brazil.—*M. heptaphylla*, Fisch. (M. fasciata, Ker.; B, Reg. 6, t. 467.) ⊙ Brazil.—*M. triloba*, Desf. ⊙ S. America.—*M. bracteata*, Cav. ⊙ Brazil.—*Urena multifida*, Cav. ♄ Bourbon.—*U. tricuspis*, Cav. ♃. Bourbon.—*U. reticulata*, Cav. ♄ Cayenne.—*U. subtriloba*, Schrank. ⊙ Brazil.—*U. Swartzii*, DC. ♄ Surinam.—*U. paradoxa*, Kth. ♄ Banks of Orinoco.—*Pavonia Schrankii*, Spreng.; B. M. 65, t. 3692. ♄ Brazil.—*P. Spinifex*, Willd.; B. Reg. 4, t. 339. ♄ S. America.—*P. leptocarpa*, DC. ♄ Surinam.—*P. coccinea*, Cav. ♄ St. Domingo.—*P. typhæleoides*, Kth. ♄ Trinidad.—*Achania mollis*, Ait.; B. R. 1, t. 11. 5 Mexico.—*Hibiscus liliiflorus*, Cav. 5. Bourbon.—*H. splendens*, Fraz.; B. Reg. 19, t. 1629. ♄ N. Holland.—*H. unidens*, Lindl.; B. Reg. 11, 878. ♄ Brazil.—*H. lilacinus*, Lindl.; B. Reg. 23, t. 2009. ♄ Swan River.—*Anoda triloba*, Cav. ♄ Mexico.—*A. incarnata*, Humb. ♂. Mexico.—*A. parviflora* Cav. ⊙ W. Indies.—*Periptera punicea*, DC. (Sida periptera, Sims; B. M. 40, t. 1644.) ♄ Mexico.—*A. pictum*, Hook; B. M. 67, t. 3840. ♄ Brazil.—*Sida pulchella*, Willd.; B. M. 54, t. 2753. ♄ N. Holland.—*S. globiflora*, Hook; B. M. 55, t. 2821. ♄ Mauritius.—*S. sessiliflora*, Hook; B. M. 55, t. 2857. ♄ S. America.—*S. rosea*, Lk. and Ott.; B. M. 59, t. 3150. ♄ S. America. —*Decaschistia crotonifolia* W. and A.; Wight icon. 1, t. 42. ♄ Mysore.—*D. triloba*, Wight; icon. 1, t. 88. ♃. Belgaum.

ORDER LXXI.—ELÆOCARPACEÆ, Lindl. Nat. Syst. p. 97.

Trees or shrubs, referred to 9 genera including 65 species: 5 from S. America; 2 from New Zealand; 2 from New Holland; 1 from Mauritius, and 55 from the E. Indies. Of the latter, 40 belong to *Elæocarpus*, which, however, upon a strict revision of authentic species, will, no doubt, be somewhat reduced; 11 to *Monocera;* 2 to *Ganitrus;* and 1 to *Acronodia.* 2-3 are natives of Cochin-China; 2 of the Moluccas; 1 of Luzon; 7 of the Khassya mountains and Assam; 11 of Java; and the rest of the two Peninsulas of India. Properties but little known.

A synopsis of some of the Indian species will be found in *Wight's ill.* 1, *p.* 83-84.

Monocera, Jack. (*W. and A. pr.* 1, *p.* 83.)

1. *rugosa*, Wight. (*ill.* 1, *p.* 83;—*icon.* 1, *t.* 61.—Elæocarpus rugosus. *Roxb. fl. ind.* 2, *p.* 596.) L. ♄ Assam, Chittagong. Fl. large white, In H. C. G. fl. fr. Feb. and March; fr. June and July. (*Roxb.*)
2. *Roxburghii*, Wight. (*ill.* 1, *p.* 83;—*icon.* 1, *t.* 63.—Elæocarpus aristatus, *Roxb. fl. ind.* 2, *p.* 599.) L. ♄ Khassya Mountains. Fl.

middle-sized, yellow, fragrant. In H. C. G. fl. April; fr. August. (*Roxb.*)

GANITRUS, Rumph. (*Gärtn. fr.* 2, *p.* 271.)

1. *sphæricus*, Gärtn. (*o. c. t.* 139;—*Wight. ill.* 1, *p.* 83;—*icon.* 1, *t.* 66.—Elæocarpus Ganitrus, *Roxb. fl. ind.* 2, *p.* 592;—*J. Grah. Cat. B. pl. p.* 22;—*Rumph.* 3, *t.* 101.) L. ♄ Moluccas, Assam, Khassya and Morung Mountains, Nepal. Fl. middle-sized, white. In H. C. G. fl. Feb. and March; fr. Nov. (*Roxb.*) The hard, dry, deeply grooved and elegantly sculptured *seeds* are frequently worn as beads by Brahmins and Fakeers, and set in gold, are sometimes even sold as ornaments in England. (*Royle.*)

ELÆOCARPUS, L. (*W. and A. pr.* 1, *p.* 82.)

1. *prinodes* (E. serratus, *Roxb. fl. ind.* 2, *p.* 596, not L.;—*W. and A. l. c. annot.*) জলপাই *Julpai.* ♄ Assam, Khassya Mountains, Kamaon. Fl. small, white, H. S.; fr. R. S. *Fruit* eaten by the Natives in their curries, or pickled. No oil can be extracted from them. (*Roxb.*)
2. *lanceæfolius* Roxb. (*fl. ind.* 3, *p.* 598;—*Wight. icon.* 1, *t.* 65.) ♄ Khassya Mountains, Assam. Fl. small, white. In H. C. G. fl. June and July; fr. Sept. and Oct. (*Roxb.*) *Seeds* used like those of Ganitrus sphæricus. (*Royle.*)
3. *robustus*, Roxb. (*fl. ind.* 2, *p.* 597;—*Wight. icon.* 1, *t.* 64.) L. ♄ Khassya Mountains. Fl. largish, white, fragrant, June and July; fr. Sept. and Oct.
4. *lucidus*, Roxb. (*fl. ind.* 2, *p.* 600.) ♄ Chittagong. Introduced into H. C. G. in 1810, but had not fl. in 1814.
5. *longifolius*, Bl. (*Spreng. c. p. p.* 189.) ♄ Java. Banks of the Saluen. Introduced in 1839. Has not fl.
6. *integrifolius*, Lam. (*DC. pr.* 1, *p.* 519.) ♄ Mauritius. Has been introduced into H. C. G. Fl.?

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* *Monocera toberculata*, W. and A.; Wight. ill. 1, t. 35. ♄ Travancore. Neelgherry,—*M. Griffithii*, Wight. ♄ Mergui.—M. *ferruginea* Wight. ♄ Neelgherry.—*M. Munronii*, Wight. ♄ Coorg.—*M. petiolata*, Jack. ♄ Penang.—*Elæocarpus serratus*, L. ♄ Travancore,—*E. cuneatus*, Wight. ♄ Malabar, Quilon, Ceylon.

ORDER. LXXII.—DIPTEROCARPACEÆ, (DIPTERACEÆ, Lindl. Nat. Syst. p. 98.)

THE CAMPHOR TREE TRIBE.

Generally large trees, arranged in 5 genera comprising 32 species: 2 for Sierra Leona; (*Lophira*); and the rest E. Indian, viz. 11 of *Dipterocarpus*;

10 of *Hopea;* 5 of *Vatica;* and 4 of *Vateria.* Besids these, Blume has three species for Java, probably belonging to Dipterocarpus. Roxburgh's Hopea eglandulosa, constitutes a new genus, to be referred probably to Euphorbiaceæ or its neighbourhood. More than 2-3ds. of the species inhabit mountainous or hilly parts of the two Indian Peninsulas.

Almost every species of this order abounds in a balsamic resinous juice, well known under the common English names of *Dammer* and *Wood-oil,* according to its hardening or continuing liquid, when exposed to the air. That drawn from the Vaticas and Vaterias hardens and forms Dammer and Piney ; that from the Dipterocarpi retains its fluidity, and is the Wood-oil of the bazars. Some of the species produce a fragrant resin, which is burnt in the temples as incense. Dammer is used in India for most of the purposes to which pitch and rosin are applied in Europe. Wood-oil either alone, or thickened with Dammer, supplies a useful varnish for wood, possessing the valuable property of repelling, for a long time, the attacks of white ants, as well as of resisting the influence of the climate. (*Wight.*)

Vateria, L. (*W. and A. pr.* 1, *p.* 83.)

1. *indica,* L. (*W. and A. l. c.;—Wight ill.* 1, *t.* 36 ;—*Roxb. Corom.* 3, *t.* 288 ; *fl. ind.* 2, *p.* 602 ;—*J. Grah. Cat. B. pl. p.* 22. Elæocarpus copalliferus, *Retz.;—Rheed.* 4, *t.* 15.) *Piney Varnish tree.* L. ♄ Malabar. Fl. middle-sized, white. In H. C. G. fl. H. S.; fr. Aug. (*Roxb.*)

Vateria indica produces the resin called in India, Copal, (in England known by the name of *Gum Anime*) as very nearly approaching the true resin of that name. (*Lindl.*) When recent, it is found from pale green to a deeper amber colour, with all the intermediate shades. In some parts of India, beads are made of such pieces as most resemble Amber beads, even to being electrical, when excited by rubbing. (*Roxb.*) The resin is procured by cutting a notch in the tree, sloping inwards and downwards. This is soon filled with the juice, which in a short time hardens by exposure to the air. When used as a varnish (*Piney Varnish*), the usual practice is to apply the balsam, before it has become hard ; but when this cannot be procured, the resin melted by a slow fire and mixed with boiling Linseed-oil forms a varnish, which answers equally well for most purposes. The resin is on the Malabar-coast also made into candles. While burning, these diffuse an agreeable fragrance, give a fine clear light with little smoke, and consume the wick so as not to require snuffing. (*Wight.*)

2. *lanceæfolia,* Roxb. (*fl. ind.* 2, *p.* 601 ;—*Wight ill.* 1, *p.* 88.) ♄ Assam, Khassya Mountains. Fl. largish, white, fragrant. In H. C. G. fl. April and May ; fr. July and Aug. (*Roxb.*) This tree yields a resin like that of *No.* 1, from which the Indians prepare one of the materials of their religious oblations. (*As. Res.* 12, *p.* 539.)

Vatica, L. (*W. and A. pr.* 1, *p.* 84.—Shorea, (*Roxb.*)

1. *robusta,* W. and A. (Shorea robusta, *Roxb. fl. ind.* 2, *p.* 615 ;—*Corom.* 3, *t.* 212.) साल *Sal.* L. ♄ Morung, Nepal. Extends more nor-

therly than any other of the order, being found all along the Himalaya, to the neighbourhood of the Jumna, forming vast forests, frequently unmixed with any other tree, but generally confined in the most northern parts within the first range of the hills, (*Royle*). Fl. middle-sized, yellowish-white, fragrant, April and May; fr. R. S. It affords the best and most extensively used timber in India; the goodness of which must depend in a great measure on the resin, (called *ral* in the northern, and *dhoona* in the southern provinces) which it contains. (*Royle.*)

2. *Tumbuggaia,* W. and A. (*pr.* 1, *p.* 84;—*Wight icon.* 1, *t.* 27.—Shorea Tumbuggaia, *Roxb. H. B. p.* 42;—*fl. ind.* 2, *p.* 617.) ♄ Paulghat Mountains. Fl. middle-sized. Introduced into H. C. G., before 1814. Fl.?

Dipterocarpus, Gärtn. (*W. and A. pr.* 1, *p.* 84.)

1. *lævis,* Buch (*W. and A. o. c. p.* 85.—Dipterocarpus turbinatus, *Roxb. Corom.* 3, *t.* 213;—*fl. ind.* 2, *p.* 612.) L. ♄ Tippera, Ava. Fl. large white, tinged with red. In H. C. G. fl. March; fr. May and June, Yields an abundance of *Wood-oil.* A large notch is cut into the trunk of the tree, near the ground, where a fire is kept up, till the wound is charred, soon after which the balsam begins to ooze out: the average produce of the best trees during the season, is said to be sometimes 40 gallons. It is found necessary, every three or four weeks, to cut off the old charred places and burn them again. In large healthy trees, abounding in balsam, they even cut a second notch in some other part of the tree and char it as the first. These operations are performed during the months of November, December, January and February. Should any of the trees appear sickly the following season, one or several years respite is given them. (*Roxb.*)
2. *angustifolius,* W. and A. (*pr.* 1, *p.* 84. *annot.*—Dipterocarpus costatus, *Roxb. fl. ind. p.* 613, not Gärtn.) L. ♄ Chittagong. In H. C. G. fl. C. S; fr. April and May. (*Roxb.*) Next to the following species, it furnishes the largest quantity of Wood-oil.
3. *incanus,* Roxb. (*fl. ind.* 2, *p,* 614.) L. ♄ Chittagong. In H. C. G. fl. Nov. and Dec.; fr. April. (*Roxb.*)
4. *alatus,* Roxb. (*fl. ind.* 2, *p.* 614.) L. ♄ Pegu, Mascal Islands. Introduced into H. C. G. in 1809. Here the tree has not fl., though cultivated for more than fourteen years.

Hopea, Roxb. (*W. and A. pr.* 1, *p.* 85.)

1. *odorata,* Roxb. (*fl. ind.* 2, *p.* 609.) ♄ Chittagong, Pegu. Fl. small, pale-yellow, fragrant. In H. C. G. fl. April and May; fr. R. S. (*Roxb.*)
2. *faginea* Wall Cat. Penang. Introduced in 1840.

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* *Vateria Roxburghiana,* Wight icon. 1, t. 26. ♄ Peninsula of India.—*V. ceylanica,* Wight. Ceylon.—*Vatica laccifera,* W. and A.; Wight

icon. 1, t. 164. ♄ Paulghat Mountains.—*V. obtusa* (Shorea obtusa. Wall. Cat.) Martaban.—*V. camphorifera*, Wight. (Shorea camphorifera, Roxb. Dryobalanops Camphora, Gärtn.) the famous Camphor-tree of Sumatra.—*Dipterocarpus turbinatus*, Gärtn. ♄ Chittagong.—*D. tuberculatus*, Roxb. ♄ Chittagong.—*D. pilosus*, Roxb. ♄ Mascal Islands.—*Hopea Wightiana*, Wall.; Wight ill. 1, t. 37. ♄ Peninsula of India.—*Lophira alata*, Banks. ♄ S. Leona.

ORDER. LXXIII.—TILIACEÆ, Juss. Lindl. Nat. Syst. p. 99.

THE LINDEN TRIBE.

Trees, shrubs, seldom undershrubs or herbs, referred by Lindl. to 29 genera, from which must be deducted Vatica. As to species, DC. pr. and Spreng. syst. enumerate 53 from S. America, Mexico, and the W. Indies; 8 from tropical Africa; 6 from Europe; 5 from Japan; 4 from N. America; 4 from Arabia; 2 from the Society Islands; 2 from Mauritius; 1 from China; 1 from Madagascar, and 1 from New Zealand. To these Wall. Cat. adds 1 from St. Helena, and 1 from Zanzebar. Six forms have been discovered in S. Africa (*Harvey*); and 82 in the E. Indies, viz. 53 of *Grewia;* 12 of *Triumfetta;* 8 of *Corchorus;* 3 of *Columbia;* 1 of *Diplophractum;* 1 of *Neesia;* 1 of *Porpa;* 1 of *Espera*; (*Spreng.*) 1 of *Berrya;* and 1 of *Brownlowia.* With the exception of a few Nepalese species, the order is in India confined to the tropics.

General properties mucilaginous and emollient; special ones noticed under the different species.

Corchorus, L. (*DC. pr.* 1, *p.* 504;—*W. and A. pr.* 1, *p.* 72.)

1. *fascicularis*, Lam. (*DC. pr.* 1, *p.* 505;—*W. and A. l. c.*;—*Roxb. fl. ind.* 2, *p.* 582.) জঙ্গলি পাট *Junglee-pat.* বিল নালিতা *Bil-nalita.* ⊙ Peninsula of India, Bengal, (Serampore,) extending up to the arid region on the western banks of the Jumna. Fl. small, yellow, R. and C. S.; fr. C. S.
2. *trilocularis*, L. (*DC. pr.* 1, *p.* 504;—*W. and A. pr.* 1, *p.* 72;—*Roxb. fl. ind.* 2, *p.* 582;—*J. Grah. Cat. B. pl. p.* 20.) ⊙ Peninsula of India, Prome, Bengal, (Serampore.) Fl. small, yellow, Aug. and Sept.; fr. Oct. and Nov.
3. *olitorius*, L. (*DC, pr.* 1, *p.* 504;—*W. and A. pr.* 1, *p.* 73;—*Roxb. fl. ind.* 2, *p.* 581;—*J. Grah. Cat. B. pl. p.* 20;—*B. M.* 55, *t.* 2810. C. decemangularis, *Roxb. o. c. p.* 582.) পাট *Pat.* ⊙ Both Peninsulas of India, Bengal, (Serampore.) Fl. small yellow, R. S.; fr. Oct. and Nov. used in India, and in Egypt, as a pot-herb. Cultivated in Bengal for the fibres of its bark, which, like those of *C. capsularis*, L., are employed in making a coarse kind of cloth (*gunny*, or rice bags,) cordage for agricultural purposes and boats, and Bengalee paper.

4. *acutangulus*, Lam. (*DC. pr.* 1, *p.* 505;—*W. and A. pr.* 1, *p.* 73;—*J. Grah. Cat. B. pl. p.* 20.—C. fuscus, *Roxb. fl. ind.* 2, p. 582.—C. æstuans, *Gärtn. fr.* 2, *t.* 64.) তিত পাট *Tita-pat.* ⊙ Both Peninsulas of India, Bengal, (Serampore,) extending up to Saharunpore. Fl. small, yellow, R. S.; fr. C. S.
5. *capsularis*, L. (*DC. pr.* 1, *p.* 505;—*W. and A. pr.* 1, *p.* 73;—*Roxb. fl. ind.* 2, *p.* 581;—*Wight icon.* 1, *t.* 311.—*Rumph.* 5, *t.* 78, *f.* 1,) ঘি নালিতা পাট *Ghi-nalita-pat.* ⊙ China, Moluccas, both Peninsulas of India, Bengal, (Serampore,) extending up to Saharunpore. Fl. small, yellow, R. S.; fr. Sept. and Oct. Cultivated in China and Bengal, for the same purposes as No. 3.

Triumfetta, L. (*DC. pr.* 1, *p.* 506;—*W. and A. pr.* 1, *p.* 73.)

1. *angulata*, Lam. (*DC. o. c. p.* 507;—*W. and A. o. c. p.* 74;—*J. Grah. Cat. B. pl. p.* 21.—*Wight icon.* 2, *t.* 320.—T. Bartramia, L., partly;—*Roxb. fl. ind.* 2, *p.* 463.) বন ওকড়া *Bun-okra.* ⊙ Peninsula of India, Bengal, (Serampore,) Saharunpore. Fl. small, yellow, R. and C. S.; fr. C. S.
2. *rotundifolia*, Lam. (*DC. pr.* 1, *p.* 506;—*W. and A. pr.* 1, *p.* 75.—T. orbiculata, *Roxb. H. B. p.* 36.—T. sub-orbiculata, *DC. l. c.*) ♃. Circars, Bengal. Fl. small, yellow, Sept. and Oct.; fr. C. S.
3. *annua*, L. (*DC. pr.* 1, *p.* 507;—*Roxb. H. B. p.* 36;—*B. M.* 49, *t.* 2296.) ⊙ Bengal. Fl. small, yellow, Jan. and Febr.; fr. May.
4. *trilocularis*, Roxb. (*fl. ind.* 2, *p.* 462;—*DC. pr.* 1, *p.* 508.) ♄ Bengal, (Serampore,) Senegambia. Fl. small, yellow, Oct. and Nov.; fr. Jan. and Feb.

Grewia, L. (*DC. pr.* 1, *p.* 508;—*W. and A. pr.* 1, *p.* 75.)

1. *orientalis*, L. (*DC. pr.* 1, *p.* 510, excl. syn. Rheed;—*W. and A. pr.* 1, *p.* 76;—*Roxb. fl ind.* 2, *p.* 586? excl. syn. Rheed.) ♄ Peninsula of India, Bengal. Fl. small, white, H. S.; fr. C. S.
2. *lævigata*, Vahl. (*DC. pr.* 1, *p.* 510;—*W. and A. pr.* 1, *p.* 77.—G. didyma, *Roxb. fl. ind.* 2, *p.* 591,) ♄ Both Peninsulas of India, Bengal, (Serampore,) Hindoosthan, Kheree Pass, Deyra-Dhoon. Fl. smallish, white, Sept. and Oct.; fr. C. S. Leaves in the Upper Provinces used as fodder for cattle (*Royle.*)
3. *columnaris*, Sm. (*DC. pr.* 1, *p.* 510;—*W. and A. pr.* 1, *p.* 76;—*Wight icon.* 1, *t.* 44.) ♄ Peninsula of India, Khassya Mountains. Fl. middle-sized, whitish, R. S.; fr. C. S.
4. *trichodes*, (G. pilosa, *Roxb. fl. ind.* 2, *p.* 588; not Lam.) ♄ Bengal, (Serampore.) Fl. small, white, becoming yellow, Sept. and Oct.; fr. C. S.
5. *polygama*, Roxb. (*fl. ind.* 2, *p.* 588.) ♄ Bengal, (Serampore.) Fl. small, white, Aug. and Sept.; fr. C. S.
6. *pilosa*, Lam., (*DC. pr.* 1, *p.* 510;—*W. and A. pr.* 1, *p.* 78; not *Roxb.*—G. carpinifolia, *Roxb. fl. ind.* 2, *p.* 587; not Juss.—G. commutata, *DC. o. c. p.* 511.—G. flavescens, *Juss.*; *DC. o. c. p.* 510.)

ħ Peninsula of India, Tavoy. Fl. small, whitish. In H. C. G. fl. and fr. C. S.

7. *abutilifolia*, Juss. (*DC. pr.* 1, *p.* 511;—*W. and A. pr.* 1, *p.* 79.—G. aspera, *Roxb. fl. ind.* 2, *p.* 591.) ħ Peninsula of India. Fl. middlesized, greenish white, and fr. throughout the year.

8. *viminea*, Wall. Cat. ħ Prome. Fl. smallish, white, R. S.; fr. 0.

9. *oppositifolia*, Buch. (*Roxb. fl. ind.* 2, *p.* 583;—*Wight icon.* 1, *t.* 82.) 5 Kheree-Pass, Deyra Dhoon. Fl. largish, yellowish, R. and C. S.; fr. C. S. The inner *bark* of this tree used by the Natives for making coarse-cloth and agricultural cordage. (*Royle.*)

10. *sclerophylla*, Roxb. (*H. B. p.* 42;—*Wight icon.* 1, *t.* 89.—G. scabrophylla, *Roxb. fl. ind.* 2, *p.* 584.) ħ Hindoosthan, extending to the Kheree Pass and Deyra Dhoon. Fl. largish, white, April and May; fr. Oct. and Nov. *Berries* acid, used by the Natives for making sherbet. (*Royle.*)

11. *occidentalis*, L. (*DC. pr.* 1, *p.* 511;—*B. M.* 12, *t*, 422.) ħ C. G. H. Fl. middle-sized, rose-coloured. Introduced in 1840. Has not fl.

12. *sepiaria*, Roxb. (*H. B. p.* 42; *fl. ind.* 2, *p.* 589.—G. serrulata, *DC. pr.* 1, *p.* 510.) পানীসাড়া *Panee-sara.* ħ Bengal, (Serampore.) Fl. middle-sized, white, R. S.; fr. C. S. Often employed with Trophis aspera, Retz. for making hedges.

13. *umbellata*, Roxb. (*fl. ind.* 2, *p.* 591;—*Wight icon.* 1, *t.* 83.) ħ ◡ Sumatra, Penang. Fl. largish, whitish, April and May; fr. 0.

14. *paniculata*, Roxb. (*fl. ind.* 2, *p.* 591; not Microcos tomentosa, *Sm.* according to G. Don.) ħ Penang, Malacca. Fl. smallish, greenish-yellow, Aug. and Sept.; fr. 0.

15. *asiatica*, L. (*DC. pr.* 1, *p.* 511;—*W. and A. pr.* 1, *p.* 79;—*Roxb. fl. ind.* 2, *p.* 586;—*J. Grah. Cat. B. pl. p.* 21.) ফল্সা *Phulsa.* 5 Peninsula of India, Bengal, (Serampore.) Fl. middle-sized, yellowish-orange, C. S.; fr. H. S. *Berries* acid, palatable, and as well as those of the next species, used for making sherbet.

16. *sapida*, Roxb. (*fl. ind.* 2, *p.* 590.) ħ Bengal, extending from Chittagong up to the jungles and forests at the foot of the Himalaya. In H. C. G. fl. March; fr. May and June.

17. *ulmifolia*, Roxb. (*fl. ind.* 2, *p.* 591);—*Wight icon.* 1, *t.* 84.—G. Microcos, *W. and A. pr.* 1, *p.* 81; not L.;—*J. Grah. Cat. B. pl. p.* 21.) ♄ China, Assam.—In H. C. G. fl. H. and R. S; fr. C. S.

18. *humilis*, Wall. Cat. (*G. Don's Mill. dict*, 1, *p.* 549.) ħ Banks of the Irawaddi.—Fl. R. S; fr. C. S.

19. *microstemma*, Wall. Cat. ħ Banks of the Irawaddi. Fl. R. S.

20. *denticulata*, Wall. MSS. ħ Nepal. Fl. R. S.

21. *floribunda*, Wall. MSS. ħ Burma. Fl. R. S.

Berrya, Roxb. (*DC. pr.* 1, *p.* 517; *W. and A. pr.* 1. 81.)

1. *Ammonilla*, Roxb. (*DC. l. c. p.* 518;—*W. and A. l. c.*;—*Wight ill.* 1, *t.* 33;—*Roxb. Corom.* 3, *t.* 264;—*fl. ind.* 2, *p.* 639.) *Trincomalee*

wood-tree. L. ♄ Ceylon. Fl. small, white, with gold-coloured anthers, May ; fr. Aug.—*Wood* esteemed for its lightness and strength, and employed in the construction of the Massoola boats of Madras. (*Wight.*)

Brownlowia, Roxb. (*Corom.* 3, *t.* 265 ;—*B. Reg.* 17, *t.* 1472.—Humea, *Roxb. fl. ind.* 2, *p.* 640.)

1. *elata,* Roxb. (*Corom. pl. l. c.;—B. Reg. l. c.;—Wall. pl. as. rar.* 3, *p.* 45.—Humea elata, *Roxb. fl. ind. l. c.*) L. ♄ Chittagong. Fl. middle-sized, yellowish-white, April and May ; fr. Sept. and Oct.

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* *Sparmannia africana,* L. fil.; B. M. 15, t. 516. ♄ C. G. H.—*Heliocarpus americanus,* L. ♄ Vera Cruze.—*Honckenya ficifolia,* Willd. ♄ Guinea.—*Triumfetta havanensis,* H. B. and Kth. ♄ Cuba.—*T. semitriloba.* L. ♄ W. Indies.—*T. mollissima,* H. B. Kth. ♄ St. Fe de Bogota.—*T. rhomboïdea,* Jacq. ♄ W. Indies.—*T. althæoïdes,* Lam. ♄ Cayenne.—*Grewia villosa,* Hb. Miss. ♄ Trichinopoly.—*G. tiliæfolia,* Vahl. ♄ Neelgherry.—*G. populifolia,* Vahl. ♄ Peninsula of India.—*G. elastica,* Royle. ill. 1, t. 22. ♄ Himalaya.—*G. Microcos,* L. ; Wight. ill. 1, t. 33. ♄ Peninsula of India.—*Columbia serratifolia,* DC. ♄ Philippine Islands.—*Muntingia Calabura,* L. ♄ W. Indies.—*Apeiba Petoumo,* Aubl. ♄ *Guiana.—Sloanea Massoni,* Swz. ♄ W. Indies.—*Lühea speciosa,* Willd. Brazil.—*L. grandiflora,* Mart. Brazil.—*L. candicans,* Mart. Brazil.

ORDER LXXIV.—LYTHRACEÆ,—Lindl. Nat. Syst. p. 100.

THE LOOSESTRIFE TRIBE.

Herbs, undershrubs, seldomer shrubs or trees, referred to 27 genera. Of species, DC. (1828) enumerates about 105 for S. America, Mexico and the W. Indies ; 10 for Europe ; 7 for N. America ; 4 for N. Africa ; 4 for Senegal ; 1 for Iberia ; 1 for Caucasus ; 1 for Timor ; 1 for Mauritius ; 1 for China ; and 1 for New Holland. In South Africa have been found 3 species, (*Harvey*) ; and in the E. Indies 32 : 3 of *Rotala ;* 1 of *Symmetria ;* 2 of *Cryptotheca ;* 4 of *Ameletia ;* 7 of *Ammannia ;* 1 of *Lythrum ;* (Cashmere) ; 1 of *Fatioa ;* (Lagerströmia parviflora ?) (*Royle*) ; 1 of *Pemphis ;* 1 of *Nesæa,* (*Wight*) ; 1 of *Lawsonia ;* 1-2 of *Grislea ;* 8 of *Lagerströmia ;* and 1 of *Duabanga.* Five of these have also been found in other parts of the world. Most of them are tropical, only 4 extending to the foot of the Himalayas, in the Deyra Dhoon.—Properties unimportant.

Rotala, L. (*Wight. ill.* 1, *p.* 205-6.)

1. *Roxburghiana,* Wight. (*ill.* 1, *p.* 206 ; *icon.* 1 *t.* 260. *A.*—Ammannia pentandra, *Roxb. fl. ind.* 1, *p.* 427 ; *ed. Carey,* 1, *p.* 448 ;—*DC. pr.* 3, *p.* 79 ;—*W. and A. pr.* 1, *p.* 305.) ⊙ Peninsula of India, Bengal, (Serampore,) Nepal. Fl. minute, red ; and fr. R. S.

AMELETIA, DC. (*Wight. ill.* 1, *p.* 205-6.)

1. *indica*, DC. (*pr.* 3, *p.* 76 ;—*W. and A. pr.* 1, *p.* 303 ;—*Wight. ill.* 1, *p.* 206 ; *icon.* 1, *t.* 257, *A.*—Ammannia nana, *Roxb. ? fl. ind.* 1, *p.* 427 ; *ed. Carey*, 1, *p.* 448.) ⊙ Peninsula of India, Bengal, (Serampore.) Fl. minute ; and fr. R. S.
2. *rotundifolia*, Wight (*ill.* 1. *p.* 206 ;—*icon.* 1, *t.* 258.—Ammannia rotundifolia, *Buch. ;—Roxb. fl. ind.* 1, *p.* 425 ; *ed. Carey*, 1, *p.* 446 ;—*DC. pr.* 3, *p.* 79 ;—*W. and A. pr.* 1, 306.) ⊙ Neelgherries, Khassya Mountains, Deyra-Dhoon. ⊙ Fl. small, red ; and fr. R. S.

AMMANNIA, L. (*DC. pr.* 3, *p.* 77 ;—*Wight. ill. p.* 205-6.)

1. *vesicatoria*, Roxb. (*fl. ind.* 1, *p.* 426 ; *ed. Carey*, 1, *p.* 447 ;—*DC. pr.* 3, *p.* 78 ;—*W. and A. pr.* 1, *p.* 305 ;—*J. Grah. Cat. B. pl. p.* 67.) দাদমারি *Dad-Mari*. ⊙ Both Peninsulas of India, Bengal, (Serampore,) Saharunpore. Fl. minute, red ; and fr. R. S. The whole plant has a strong muriatic, not disagreeable smell. Its *leaves*, being extremely acrid, are used by the native practitioners of India to raise blisters in rheumatism, &c. Bruised and applied to the part intended to be blistered, they perform their office in half-an-hour, and most effectually. (*Ainslie.*)
2. *indica*, Lam. (*DC. pr.* 3, *p.* 77 ;—*W. and A. pr.* 1. *p.* 305.) ⊙ Both Peninsulas of India, Bengal, (Serampore.) ⊙ Fl. minute, reddish, and fr. R. S.
3. *multiflora*, Roxb. (*fl. ind.* 1, *p.* 426 ; *ed. Carey*, 1, *p.* 447 ;—*DC. pr.* 3, *p.* 79 ;—*W. and A. pr.* 1, *p.* 305.) ⊙ Peninsula of India, Bengal, (Serampore.) Fl. minute, red ; and fr. R. S.

NESÆA, Commers. (*DC. pr.* 3, *p.* 90 ;—*Wight. ill. p.* 205-6.)

1. *triflora*, H. B. and Kth. (*DC. l. c. ;—W. and A. pr.* 1, *p.* 307 ;—*Wight. icon.* 1, *t.* 259. Lythrum triflorum, *L. fil.*) ♃. Mauritius. Fl. small, blue ; and fr. nearly the whole year.
2. *octandra*, Wight. (*ill.* 1 *p.* 205-6.—Ammannia octandra, *L. ;—DC. pr.* 3, *p.* 80 ;—*Roxb. Corom.* 2, *t.* 133 ;—*fl. ind. p.* 425 ;—*ed. Carey*, 1, *p.* 446 ;—*W. and A. pr.* 1, *p.* 304 ;—*J. Grah. Cat. B. pl. p.* 67.) ⊙ Peninsula of India, Saharunpore. Fl. small, bright red ; and fr. R. S.
3. *myrtifolia*, Lindl. (Heimia myrtifolia, *Lk.*) ♄ Brazil. Fl. smallish, yellow, R. and C. S. ; fr. C. S.

LYTHRUM, L. (*DC. pr.* 3. *p.* 80.)

1. *Salicaria*, L. (*DC. o. c. p.* 82 ;—*E. B.* 15, *t.* 1061.) *Purple Loosestrife.* ♃. Europe. W. Asia. N. Holland. Fl. middle-sized, pale purple, R. S. It is the only species of the order yet described from N. Holland, if we except Rotala ? decussata, DC.
2. *virgatum*, L. (*DC. pr.* 3, *p.* 83 ;—*B. M.* 25, *t.* 1003.) ♃. Siberia, Russia, Tauria, Austria, Germany, Belgium. Fl. middle-sized, reddish-purple, R. S.

CUPHEA, Jacq.

1. *ligustrina*, Schlecht. and Cham. ♄ S. America. C. S. 1840.

GINORIA, Jacq.

1. *americana*, Jacq. (*amer. p.* 148, t. 91. *DC.* 3, *p.* 91.) ♄ Cuba., C. S. 1840.

LAWSONIA, L. (*DC. pr.* 3, *p.* 90;—*W. and A. pr.* 1, *p.* 307.)

1. *alba*, Lam. (*DC. o. c. p.* 91;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 67;—*Wight. ill.* 1, *t.* 94.—L. spinosa, *L.*—L. inermis, *L.*;—*Roxb. fl. ind.* 2, *p.* 258;—Alcanna, *Gärtn. fr.* 2, *t.* 110;—*Rheed.* 1, *t.* 40;—*Rumph.* 4, *t.* 17.) মেন্দি *Mendi.* ♄ Moluccas, Peninsula of India, Bengal, (Serampore,) Hindoosthan, &c. Exists in a cultivated state in N. Africa and most parts of the Oriental region. Fl. small, pale greenish, fragrant; and fr. the whole year. This is the *Henna-plant* of Egypt. The fresh *leaves*, beaten up with Catechu, dye the nails and skin of a reddish orange colour, which is much admired by the women of India and Egypt. The fresh made paste is laid on at bed-time, and removed in the morning, when the colour remains till the nails or epidermis are renewed or removed. (*Roxb.*) The leaves are also used for dyeing skins and maroquins reddish yellow, and for many other purposes. They contain no tannin. (*Edinb. Phil. Journ.* 12, *p.* 416.)

GRISLEA, Löfl. (*DC. pr.* 3, *p.* 92;—*W. and A. pr.* 1, *p.* 307.)

1. *tomentosa*, Roxb. (*Corom.* 1, *t.* 31;—*fl. ind.* 2, *p.* 233;—*DC. l. c.*;—*W. and A. o. c. p.* 308;—*J. Grah. Cat. B. pl. p.* 67;—*B. Reg.* 1, *t.* 40;—*B. M.* 44, *t.* 1906.—Woodfordia floribunda, *Salisb. par. lond. t.* 42.—Lythrum fruticosum, *L.*—L.? Hunteri, *DC. pr.* 3, *p.* 83.) ধব *Dhub.* ধাঈফুল *Dhaee phool.* ♄ Peninsula of India, Bengal, (Serampore,) Oude, Deyra Dhoon, Timor, Java, China. Fl. middle-sized, scarlet, with rose-coloured petals, Feb. and March; fr. R. S. Fl. employed in India, mixed with Morinda, to dye red. (*As. Res.* 4, *p.* 42.)

LAGERSTRÖMIA, L. (*DC. pr.* 3, *p.* 93;—*W. and A. pr.* 1, *p.* 308.)

1. *indica*, L. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 2, *p.* 505;—*Wight. ill.* 1, *t.* 95;—*J. Grah. Cat. B. pl. p.* 67;—*B. M.* 12, *t.* 405.—Velaga globosa, *Gärtn. fr.* 2, *t.* 133.—*Rumph. auct. t.* 28.) তেলাঙ্গাচীনা *Telanga-cheena.* ♄ China. Fl. largish, R. S.; fr. generally 0.

   α. rosea;—Fl. very deep rose-coloured.

   β. lilacina;—Fl. purplish-lilac.

   γ. alba;—Fl. white.

2. *parviflora*, Roxb. (*Corom.* 1, *t.* 66;—*fl. ind.* 2, *p.* 505;—*DC. pr.* 3. *p.* 93;—*Wight. icon. t.* 69, not W. and A.;—*J. Grah. Cat. B. pl. p.* 67, excl. L. microcarpa, *Wight.*) ♄ Peninsula of India, Deyra Dhoon. Fl. small, white, fragrant, H. S; fr. Aug. and Sept.

3. *Reginæ*, Roxb. (*Corom.* 1, *t.* 65;—*fl. ind.* 2, *p.* 505;—*DC. pr.* 3, *p.* 93;—*W. and A. pr.* 1, *p.* 308;—*Wight icon.* 2, *t.* 413;—*J. Grah. Cat. B. pl. p.* 67.—L. Flos reginæ, *Retz.*—Adambea glabra, *Lam*;—*Rheed.* 4, *t.* 20, 21.) জারুল *Jarool.* L. ♄ Circars, Courtallum, Valley

of the Nagotnah river, near its source, Taong Dong, Tavoy, Amherst, Moulmein, Assam, Deyra-Dhoon, China. Fl. large, pale rose-coloured in the morning, at sunset purplish, H. S.; fr. Aug. and Sept.—At Rangoon its *timber* is used to make knees for ships. (*Roxb.*)

4. *macrocarpa*, Wall. Burma.

5. *elegans*, Wall. ♄ Fl. larger than No. 1, and of the same colour. R. S.

? Duabanga, Buch. (*Lindl. Nat. Syst. p.* 101.)

1. *sonneratioïdes*, Buch. (Lagerströmia grandiflora, *Roxb. fl. ind.* 2, *p.* 503;—*DC. pr.* 3, *p.* 93.) L. ♄ Chittagong, Assam, Martaban, Nepal. Fl. large, whitish, unpleasantly smelling, Feb. and March; fr. July and Aug.

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* *Symmetria obovata*, Bl. ♄ Java.—*Cryptotheca dichotoma*, Bl. ♄ Java.—*C. apetala*, Bl. ♄ Java.—*Lythrum Hyssopifolia*, L.; E. B. 5, t. 292. ☉ Europe, America.—*L. alatum*, Pursh; B. M. 43, t. 1812. ♃. Georgia, Mexico.—*L. lanceolatum*, Ell. ♃. Carolina.—*L. album*, H. B. and Kth. ♄ Mexico.—*Cuphea circœoïdes*, Sm. B. M. 48, 2201. ☉ S. America.—*C. Melvilla*, Lindl. B. Reg, 10, t. 852. ♃.? Guiana.—*C. procumbens*, Cav. B. Reg. 3, t. 182. ☉ Mexico.—*C. micropetala*, H. B. and Kth. ♄ Mexico.—*C. Parsonsia*, R. Br. ♃. Jamaica.—*C. Melanium*, R. Br. ♃. Jamaica.—C. *parviflora*, Hook; exot. bot. t. 151. ♄ Demerara.—*Acisanthera quadrata*, Juss. ♃. Meadows of Jamaica.—*Pemphis acidula*, Forst.; Rumph. 3, t. 84. ♄ Both Peninsulas of India, Moluccas.—*Diplusodon buxifolius*, DC. ♄ Equinoctial Brazil.—*D. amoenus*, DC. ♄ Equinoctial Brazil.—*Nesæa salicifolia*, H. B. Kth. ♄ N. Spain.—*N. syphilitica*, Lindl. ♄ Mexico. *N. linariæfolia* Lindl. ♄ S. America.—*Crenea maritima*, Aubl. ♃. Cayenne.—*Antherylium Rohrii*, Vahl. ♄ St. Thomas.—*Dodecas surinamensis*, L. fil. ♄ Surinam.—*Adenaria grisleoïdes*, H. B. Kth. ♄ Banks of Magdalena river.—*Lagerströmia speciosa*, Pers. China.—*L. floribunda*, Jack, Penang.—*L. microcarpa*, Wight. icon. 1, t. 109. Courtallum.

ORDER LXXV.—MELIACEÆ, Juss.—Lindl. Nat. Syst. p. 101.

THE BEAD-TREE TRIBE.

Trees or shrubs, by Lindl. referred to 35 genera, (adding Munronia and Monocyclis, and deducting Aitonia, which Harvey places among Zygophyllaceæ.) Of their species, DC. pr. and Spreng. syst. enumerate 22 for S. America, Mexico and the W. Indies: 1 for tropical Africa; 5 for Madagascar; 5 for Mauritius; 1 for Arabia; 1 for China; and 3 for New Holland and the South Sea Islands. To these Lindl. adds an Hartighsea for N. Zealand. S. Africa exhibits 3 species, (*Harvey*); and the E. Indies

72; viz., 5 of *Turræa*; 1 of *Naregamia*; 4 of *Munronia*; 4-5 of *Melia*; 1 of *Azadirachta*; 2 of *Mallea*; 1 of *Cipadessa*; 5 of *Amoora*; 3 of *Milnea*; 4 of *Walsura*; 1 of *Monocyclis*; 2 of *Sphærosacme*; 10 of *Dysoxylum*; 1 of *Chisocheton*; 2 of *Hartighsea*; 6 of *Epicharis*; 1 of *Didymocheton*; 1 of *Gonocheton*; 1 of *Sandoricum*; 1 of *Lansium*; 5 of *Heynia*; 2 of *Xylocarpus*; 1 of *Calpandria*; and 7 of *Aglaia*. Twenty-four of these inhabit Java; 4 the Moluccas; 4 Assam; 4 the Khassya Mountains; 4 Nepal; and the rest the two Peninsulas of India, Ceylon, Sumatra, and Bengal.

"Bitter, astringent, and tonic qualities belong to the species of this order, but often developed in so considerable a degree as to render their employment dangerous, without much precaution." (*Lindl.*) The latter is however, not the case with our Indian Meliaceæ, unless f. ex. the Neem-bark and fruit are taken in an immoderate dose.

QUIVISIA, Juss. (*DC. pr.* 1, *p.* 620.)

1. *heterophylla*, Cav. (*Diss.* 7, *p.* 368. *t.* 213;—*DC. o. c. p.* 621.) ♄ Mauritius. Fl. small, whitish, April; fr. 0

MUNRONIA, Wight. (*ill.* 1, *p.* 147.)

1. *Wallichii*, Wight. (*l. c.*;—*Horsf. pl. as. rar.* 2, *p.* 176. *t.* 138.—Turræa pinnata, *Wall. pl. as. rar.* 2, *t.* 119;—*B. Reg.* 17, *t.* 1413.) ♄ Khassya Mountains. Fl. largish, rose-coloured. In H. C. G. Fl.?

MELIA, L. (*DC. pr* 1, *p.* 621;—*W. and A. pr.* 1, *p.* 117.)

1. *composita*, Roxb. (not DC.;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 30.—M. superba, *Roxb. fl. ind.* 2, *p.* 396.) L. ♄ Mysore. Hilly parts of the Concan, Parr Ghaut. Fl. small, greenish-white, honey-scented, March and April; fr. Dec. and Jan. Fruit of this larger, and not so rounded as that of *No.* 2.
2. *robusta*, Roxb. (*fl. ind.* 2, *p.* 397;—*W. and A. l. c.*; not Willd.) ♄ Mysore, Concan.
3. *Azedarach*, L. (*DC. pr.* 1, *p.* 621;—*Roxb. fl. ind.* 2, *p.* 395;—*W. and A. pr.* 1, *p.* 117;—*J. Grah. Cat. B. pl. p.* 30;—*B. M.* 27, *t.* 1066;—*Wight. icon.* 1, *t.* 160.) *Common Bead-tree. Persian Lilac.* L. ♄ Syria, China, N. India. Common about villages both in the Concan and Deccan. Fl. smallish, white, externally lilac at the top, fragrant, March; fr. Nov. and Dec.—Cultivated in Provence and in our gardens.—*Root* bitter, nauseous, used in N. America as anthelmintic. (*A. Richard.*)
4. *Bukayun*, Royle. (*ill. p.* 141.—Melia sempervirens, *Roxb. fl. ind.* 2, *p.* 395;—*W. and A. pr.* 1, *p.* 117; Swz.?) বাকার্জন *Bukarjun.* Hind, *Bukayun.* ♄ Persia, Nepal, Kemaon. Cultivated in our gardens. Fl. smallish, lilac, fragrant; and fr. the whole year.

AZADIRACHTA, Ad. Juss. (*W. and A. pr.* 1, *p.* 117.)

1. *indica*, Ad. Juss. (*W. and A. o. c. p.* 118;—*J. Grah. Cat. B. pl. p.* 30;—*Wight. icon.* 1, *t.* 17.—Melia Azadirachta, *L.*;—*DC. pr.* 1, *p.* 622;—*Roxb. fl. ind.* 2, *p.* 394;—*Burm. zeyl. t.* 15;—*Rheed* 4, *t.* 52.) নিম *Nim.* ♄ Ceylon, Peninsula of India, Ava, Bengal, (Serampore,)

Hindoosthan, Assam. Fl. small, white, honey-scented, Feb. and March; fr. May and June. *Bark* used as a good substitute for Peruvian bark. *Leaves*, especially mixed with equal parts of those of Vitex Negundo, L. are used successfully in various ways. The mixed, dried leaves, added to common poultices, act powerfully in preventing glandular tumors from coming to maturity. The same discutient effect is produced, after the application of leeches, in all kinds of bruises and sprains, by a watery or vinous infusion of them, particularly when spirit of camphor is now and then sprinkled over the cloth, steeped in the infusion. We have seen the greatest benefit from this application, in the worst cases of compound fracture. A *sacculus aromaticus* of these leaves, with a few grains of powdered camphor, seldom fail to afford relief in rheumatic affections of the ears, eyes, and teeth. From the *fruit* a bitter oil is expressed, which is used against worms, and that, according to Dr. Buchanan, in doses of one ounce. This, Achil. Richard observes, is another instance, after the Olive, of the pericarp (pulp) yielding that subtance which is usually obtained from the seed. The *seeds* after being skinned are used for killing insects, and the kernels, powdered and mixed with water, for washing the hair. *Timber* hard, durable, fit for ship-building—"Leaves beaten into a pulp, and thus externally applied, act like a charm in removing the most intractable forms of psora, and other pustular eruptions." (*Wight.*)

Mallea, Ad. Juss. (*W. and A. pr.* 1, *p.* 118.)

1. *Rothii, (W. and A. l. c.;—J. Grah. Cat. B. pl. p.* 31.—Melia baccifera, *Roth.;—DC. pr.* 1. *p.* 622.—Ekebergia indica, *Roxb. fl. ind* 2, *p.* 392.) ♄ Circars, Katruj Ghaut, near Poona. Fl. small, white; and fr. the whole year.
2. *integerrima*, Wall. MSS. (Ekebergia ? integerrima, *Wall. Cat.*) ♄ Taong Dong. Fl. small, yellowish-green, March; fr. 0.

Amoora, Roxb. (*W. and A. pr* 1, *p.* 119.)

1. *Rohituka, W. and A.* (*l. c.*—Andersonia Rohituka, *Roxb. fl. ind.* 2, *p.* 213.) তিক্তরাজ *Tikta-raj.* 5 Travancore, Moulmein, Chappedong, Bengal, (Serampore.) Fl. small, white, July and Aug.; fr. H. S. —From the *seeds* the natives, where the trees grow plentifully, extract an oil, which they use for many economical purposes. (*Roxb.*)
2. *cucullata*, Roxb. (*Corom.* 3, *t.* 258.—Andersonia cucullata, *Roxb. fl. ind.* 2, *p.* 212.) আমুরা *Amoora.* L. ♄ Soonderbuns. Fl. small, yellow. Has not fl. here.
3. *polystachya*, W. and A. (*pr.* 1, *p.* 119, *annot.*—Aglaia ? polystachya, *Wall.;—Roxb. fl. ind.; ed. Carey*, 2, *p.* 429.) L. ♄ Khassya Mountains. Fl. pale yellowish, fragrant, R. S.; fr. 0.

Milnea, Roxb. (*W. and A. pr.* 1, *p.* 118.)

1. *edulis*, Roxb. (*fl. ind.* 1, *p.* 637;—*ed. Carey*, 2, *p.* 430.) ♄ Silhet.

Fl. minute.—In H. C. G. fl. June and July; fr. Sept. and Oct. (*Roxb.*) *Fruit* watery, cooling.

Walsura, Roxb. (*W. and A. pr.* 1, *p.* 120.)

1. *piscidia*, Roxb. (*fl. ind.* 2, *p.* 387;—*W. and A. l. c.*;—*Wight ill.* 1, *t.* 55.) ♄ Circars. Fl. small, yellowish, C. S.—*Bark* thrown into ponds to kill fish, which coming to the surface, are easily taken and are not considered injurious to be eaten. (*Roxb.*)

Monocyclis, Wall. (*Rept.* sine charactere!)

1. *robusta*, Wall. (Walsura robusta, *Roxb. fl. ind.* 2, *p.* 386.) L. ♄ Silhet. Fl. smallish, white. In H. C. G. fl. March and April; fr. June and July. (*Roxb.*)

Sphærosacme, Wall. (*Cat.* sine charactere! *Lindl. Nat. Syst. p.* 103.)

1. *fragrans*, Wall. (*icon. in ed. t.* 853; according to Royle.—Aglaia? decandra, *Wall.*;—*Roxb. fl. ind.*; *ed. Carey*, 2, *p.* 427.) L. ♄ Nepal. Fl. very small, yellowish, fragrant. Has been introduced into H. C. G.? Fl.?

Dysoxylum, Bl. (*Lindl. Nat. Syst. p.* 103.)

1. *multijugum*, Arn. (*Wight. icon.* 1, *t.* 146.—Guarea paniculata, *Roxb. fl. ind.* 2, *p.* 242.) L. ♄ Assam. Fl. largish, pale yellow. In H. C. G. fl. May and June; fr. April and May. (*Roxb.*)

Epicharis, Bl. (*Lindl. Nat. Syst. p.* 103.)

1. *exarillata*, Arn. (*W. and A. pr.* 1, *p.* 120, annot.—Guarea binectarifera, *Roxb. fl. ind.* 2, *p.* 240.) L. ♄ Chittagong, Tippera. Fl. smallish, pale yellowish, May; fr. Feb. and March.
2. *mollis*, Wall. ♄ Regions bordering on Silhet. Introduced in 1835. Has not fl. here.

Sandoricum, Cav. (*DC. pr.* 1, *p.* 621;—*W. and A. pr.* 1, *p.* 119.)

1. *indicum*, Cav. (*DC. l. c.*;—*Roxb. fl. ind.* 2, *p.* 392;—*W. and A. pr.* 1, *p.* 120.—Trichilia nervosa, *Vahl.*;—*DC. pr.* 1, *p.* 623;—*Rumph.* 1. *t.* 64.) ♄ Philippine Islands, Moluccas, Mysore, Penang. Fl. small, yellow, Feb. and March; fr. Sept. and Oct.—*Fruit* eatable, watery, cooling.

Lansium, Rumph. (*Correa de Serra in Ann. mus.* 10, 157 *t.* 7, f.—*Jack. in Linn. trans.* 14, *p.* 115, *t.* 4, *f.* 1;—*Spreng. syst.* 3, *p.* 7, *No.* 2384.)

1. *domesticum*, Jack. (*Spreng. syst.* 3, *p.* 66,) excl. syn. cur. p. 52.—*Rumph.* 1, *t.* 54.) ♄ Moluccas, Sunda Islands. In H. C. G. Fl.?

Heynea, Roxb. (*DC. pr.* 1, *p.* 624;—*W. and A. pr.* 1, *p.* 120.)

1. *trijuga*, Roxb. (*fl. ind.* 2, *p.* 390;—*DC. l. c.*;—*J. Grah. Cat. B. pl. p.* 31;—*B. M.* 42, *t.* 1738.) ♄ Nepal. Fl. small, whitish, somewhat sweet-scented, March; fr. Oct.—*Bark, leaves* and *tender parts* bitter and tonic.
2. *quinquejuga*, Roxb. (*fl. ind.* 2. *p.* 391.) ♄ Moluccas, Penang. In H. C. G. Fl.?

Xylocarpus, Kön. (*W. and A. pr.* 1, *p.* 121.)

1. *Granatum*, Kön. (*W. and A. l. c.*;—*Roxb. fl. ind.* 2, *p.* 240.—Carapa moluccensis, *Lam.?*—*DC. pr.* 1, *p.* 626;—*Rumph.* 3, *t.* 61.) পুরুষ *Puroos.* ♄ Sunderbuns. Fl. small, yellowish, R. S.; fr. H. S.

Aglaia, Lour. (*DC. pr.* 1, *p.* 537.)

1. *odorata*, Lour. (*DC. l. c.*;—*Grah. Cat. B. pl. p.* 25;—*Wight icon.* 2, *t.* 511.—Camunium sinense, *Rumph.* 5, *t.* 18, *f.* 1;—*Roxb. fl. ind.* 1, *p.* 637; *ed. Carey*, 2, *p.* 425.) ♄ China, Cochin-China. Fl. small. yellow, delightfully fragrant, R. S.; fr. 0.
2. *midnaporensis*, Carey MSS. (A. grata. *Wall. Rept.*) ♄ Forests of Midnapore, from which it was sent many years ago to the late Dr. Carey.

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* *Quivisia decandra*, Cav. ♄ Mauritius.—*Naregamia alata*, W. and A.; Wight. icon. 1, t. 90. ♄ Country east of Panwell. (J. Grah.)—*Munronia pumila*, Wight icon. 1, t. 91. ♄ Ceylon.—*M. neelgherrica*, Wight. ill. 1, t. 54. ♄ Neelgherries, Coorg.—*Turræa virens*, L. ♄ Kandalla, Parr-Ghaut.—*T. rigida*, Vent. ♄ Mauritius.—*Cipadessa fruticosa*, Bl. ♄ Java.—*Amoora ficiformis*, Wight. Shevagerry mountains, near Courtallum.—*Sphærosacme spectabilis*, Wall. Nepal.—*Milnea Roxburghiana*, W. and A.; Wight. icon. 1, t. 166. ♄ Peninsula of India.—*Walsura villosa*, W. and A. Moulmein.—*Dysoxylum alliaceum*, Bl. Java.—*D. macrocarpon*, Bl. Java.—*Chisocheton patens*, Bl. Java.—*C. divergens*, Bl. Java.—*Hartighsea alliaria*, Arn. Goalpara.—*H. Gobara*, W. and A.; Goalpara.—*Epicharis densiflora*, Bl. Java.—*E. sericea*, Bl. Java.—*Didymocheton nutans*, Bl. Java.—*Goniocheton arborescens*, Bl. Java.—*Heynea affinis*, Ad. Juss. Peninsula of India. *H. connaroides*, Wight, (Xanthoxylon? connaroides, W. and A.) Peninsula of India.—*Trichilia hirta*, L. ♄ Jamaica.—*T. spondioïdes*, Swz. ♄ Jamaica.—*T. havanensis*, Jacq. ♄ Havannah.—*Guarea grandifolia*, DC. ♄ Guiana, W. Indies.—*G. Swartzii*; DC. ♄ W. Indies.—*Carapa guianensis*, Aubl. ♄ Guiana.—*Calpandria lanceolata*, Bl. ♄ Java.—*Aglaia odoratissima*, Bl. Java.—*A. speciosa*, Bl. Java.

ORDER LXXVI.—CEDRELACEÆ, Ad. Juss. Lindl. Nat. Syst. p. 103.

THE TOON-TREE TRIBE.

Large trees, of 9-10 genera comprising about 16-18 species: 5 from South America, Mexico and the W. Indies; 2 from New Holland; 1 from Senegal, and 8-10 from the E. Indies. Of the latter, 1 belongs to *Soymida*; 1 to *Chikrassia*; 1 to *Chloroxylon*; 1 to *Flindersia*; 4-5 to *Cedrela*; and 1 to *Ixionanthes*, which, perhaps does not belong to the order. Properties under the species.

SWIETENIA, L. Ad. Juss.

1. *Mahagoni*, L. (*DC. pr.* 1, *p.* 625 ;—*Cav. diss.* 7, *p.* 365, *t.* 209 ;—*Roxb. H. B. p.* 33.) *Mahagoni Tree.* L. ♄ Rocky places in the hotter parts of America. Fl. very small, pale greenish-white, April ; fr. 0.—*Bark* accounted febrifugal.

SOYMIDA, Ad. Juss. (*W. and A. pr.* 1, *p.* 122.)

1. *febrifuga*, Ad. Juss. (*W. and A. l. c.*—Swietenia febrifuga, *Roxb. Corom.* 1, *t.* 17 ; *fl. ind.* 2, *p.* 398 ;—*DC. pr.* 1, *p.* 625 ;—*J. Grah. Cat. B. pl. p.* 32.) রোহুণ *Rohuna. Red-Wood tree.* L. ♄ Central and Southern Provinces of India. In considerable abundance in various parts of Guzerat ; also at the Sindwah Ghaut, and in the Adjunta and Jowar jungles. Fl. smallish, greenish-white, March and April ; fr. July and Aug. The *Rohuna Bark* is a useful tonic in intermittent fevers, where quinine cannot be had.

CHICKRASSIA, Ad. Juss. (*W. and A. pr.* 1, *p.* 122.)

1. *tabularis*, Ad. Juss. (*W. and A. o. c. p.* 123 ;—*Wight ill.* 1, *t.* 76.—Swietenia Chickrassa, *Roxb. fl. ind*, 2. *p.* 399 ;) চিক্রাশি *Chikrasee*, L. ♄ Chittagong. Cunnawady Hills, near Dindygul. Fl. middle-sized, greenish-white. In H. C. G. fl. H. S. ; fr. C. S. The *wood* of this tree, (*Chittagong Wood*,) is close-grained, light-coloured, elegantly veined, and employed by the cabinet-makers. (*Roxb.*)

CHLOROXYLON, DC. (*pr.* 1, *p.* 625 ;—*W. and A. pr.* 1, *p.* 123.)

1. *Swietenia*, DC. (*l. c.* ;—*W. and A. l. c.* ;—*J. Grah. Cat. B. pl. p.* 32.—Swietenia Chloroxylon, *Roxb. Corom.* 1, *t.* 64 ; *fl. ind.* 2, *p.* 400.) *Satin-Wood tree.* ♄ Circars, about the falls of Gokauk, on sandstone hills, Alleh Belah Hills. Fl. small, greenish-white, March and April ; fr. C. S. *Wood*, close-grained, yellow-coloured, like the box. One of the trees that yield wood-oil.

FLINDERSIA, R. Br. (*DC. pr.* 1, *p.* 125 ;—*Spreng. syst.* 1, *p.* 520. *No.* 889.)

1. *amboinensis*, Poir. (*DC. l. c.* ;—*Spreng. syst.* 1, *p.* 794 ;—*Rumph.* 3, *t.* 129.) ♄ Moluccas. In H. C. G. Fl. ?

2. *australis*, R. Br. (*DC. l. c.*) ♄ N. Holland. In H. C. G. Fl. ?

CEDRELA, L. (*DC. pr.* 1, *p.* 624 ;—*W. and A. pr.* 1, *p*, 123.)

1. *Toona*, Roxb. (*Corom.* 3, *t.* 238 ; *fl. ind.* 1, *p.* 635 ;—*ed. Carey*, 2, *p.* 423 ;—*DC. l. c.* ;—*W. and A. o. c. p.* 124 ;—*Wight icon.* 1, *t.* 161. —C. hexandra, *Wall. in Roxb. o. c. annot.* ;—*Rumph.* 3, *t.* 39.) তুন *Toon*. L. ♄ Peninsula of India, Bengal, (Serampore.) Foot of the Himalayas. Fl. small, whitish, honey-scented, May and June ; fr. R. S. *Wood* forms the Mahogany of India, though it is lighter and more loose-textured than Mahogany. *Bark* accounted febrifugal.

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* *Khaya senegalensis*, Ad. Juss. ♄ Senegal.—*Cedrela serrata*, Royle ; ill. t. 25. ♄ Valleys of the Himalaya.—*C. odorata*, L. ♄ W. Indies.—*C. angustifolia*, Moç. and Sessé. ♄ N. Spain.—*Oxleya xanthoxyla*, Cunningh. ♄ N. S. Wales.

ORDER LXXVII.—HUMIRIACEÆ,—Ad. Juss. Lindl. Nat. Syst. p. 104.

"All Brazilian trees." (*Lindl.*)

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* *Helleria obovata*, Mart.—*Humirium crassifolium*, Mart.—*H. floribundum*, Mart. The latter, "when the trunk is wounded, yields a fragrant, *liquid*, yellow balsam, called *Balsam of Umiri*, resembling in properties Copaiva and Balsam of Peru." (*Martius.*)

ORDER LXXVIII.—CITRACEÆ.—(AURANTIACEÆ, CORR. Lindl. Nat. Syst. p. 105.)

THE CITRON TRIBE.

Trees or shrubs, comprehended in 18 genera. Of the species, 2 have been found in the South Sea Islands; 5 in China; 1 in Timor; 1 in Mauritius; 1 in Madagascar; 2 in Japan; 1 in Florida; 2 in S. America; and 74 in the E. Indies. Of the latter, 5 belong to *Atalantia;* 1 to *Triphasia;* 11 to *Limonia;* 11 to *Glycosmis;* 11 to *Sclerostylis;* 1 to *Bergera;* 3 to *Murraya;* 4-5 to *Cookia;* 8-9 to *Clausena;* 1-2 to *Micromelum;* 1-2 to *Paramignya;* 2 to *Luvunga;* 1 to *Polycyema;* 1 to *Feronia;* 1 to *Ægle;* 9 to *Citrus*, and 1 to *Chionotria.* Several species of the order will, however, require a thorough re-examination from authentic specimens. With the exception of Limonia Laureola, Wall., and L. retusa, D. Don, (Nepalese plants,) all the Indian species are tropical

The wood of the species of this order is universally hard and compact. They abound in a volatile, fragrant, bitter, exciting oil. The pulp of the fruit is always more or less acid, (*DC.*)

A. LIMONEÆ, *W. and A. pr.* 1, *p.* 90.

ATALANTIA, Corr. (*DC. pr.* 1, *p.* 535;—*W. and A. pr.* 1, *p.* 90.)

1. *monophylla*, DC. (*l. c.;*—*W. and A. o. c. p.* 91;—*J. Grah. Cat. B. pl. p.* 23.—Limonia monophylla, *L.;*—*Roxb. Corom.* 1, *t.* 82; *fl. ind.* 2, *p.* 378.—Turræa virens, *Kön;* not L.—Trichilia? spinosa, *Willd.;*—*DC. pr.* 1, *p.* 623.—Limonia pumila, *Burm. zeyl. t.* 65, *f.* 1;—*Rheed.* 4, *t.* 12.) ♄ Coromandel. Common on the Ghauts, at Sidney Point, Mahableshwur. Fl. small, white, Oct. and Nov.; fr. Feb.

2. ? *pubigera*, Wall. ♄ Assam. Introduced in 1839, has not fl.

TRIPHASIA, Lour. (*DC. pr.* 1, *p.* 535;—*W. and A. pr.* 1, *p.* 91.)

1. *trifoliata*, DC. (*o. c. p.* 536;—*W. and A. l. c.;*—*J. Grah. Cat. B. pl. p.* 23.—T. Aurantiola, *Lour.;*—*Roxb. H. B. p.* 25.—Limonia trifoliata, *L.;*—*Burm. ind. t.* 35, *f.* 1;—*Jacq. icon. rar.* 3, *t.* 463.—L.? diacantha, *DC. pr.* 1, *p.* 536.) চীনানারঙ্গি *Cheena-narungee.* ♄ China. Cultivated in gardens. Fl. middle-sized, white, fragrant; and fr. the whole year. *Fruit* very pleasant.

LIMONIA, L. (*DC. pr.* 1, *p.* 536 ;—*W. and A. pr.* 1, *p.* 91.)

1. *acidissima*, L. (*DC. l. c.* ;—*W. and A. o. c. p.* 92 ;—*J. Grah. Cat. B. pl. p.* 23.—L. crenulata, *Roxb. Corom.* 1, *t.* 86 ;—*fl. ind.* 2, *p.* 381 ; —*DC. l. c.* ;—*Rheed.* 4, *t.* 14.) ♄ Coromandel. Common on sandstone hills at Padshapore, and at the Falls of Gokauk. Monghir. Hurdwar. Assam. Fl. small, white, fragrant, H. S. ; fr. R. S.—*Fruit* much used as a tonic in Malabar, where it forms an article of commerce with the Arabs. (*J. Grah.*)
2. *angulata*, W. and A. (*pr.* 1, *p.* 91. *annot.*—Citrus angulata, *Willd.* —*DC. pr.* 1, *p.* 540 ;—*Rumph.* 2, *t.* 32.) ♄ Moluccas. Soonderbuns. Fl. small, white, fragrant. Introduced in 1840. Has not fl.
3. *caudata*, Wall. Khassya Hills. Introduced in 1839. Has not. fl.
4. ? *grata*, Wall. Native place ?—In H. C. G. Fl. ?
5. ? *alternans*, Wall. ♄ Pegu, Oct. 1821.

GLYCOSMIS, Corr. (*DC. pr.* 1, *p.* 538 ;—*W. and A. pr.* 1, *p.* 92.)

1. *arborea* DC. (*l. c.* ;—*W. and A. l. c.* ;—*J. Grah. Cat. B. pl. p.* 23. —Limonia arborea, *Roxb. Corom.* 1, *t.* 85 ; *fl. ind.* 2, *p.* 381 ;—*B. M.* 46, *t.* 2074.) ♄ Circars. Bombay Presidency. Ava. Fl. small, greenish-white. Has been introduced into H. C. G. ? Fl. ?
2. *pentaphylla*, DC. (*pr.* 1, *p.* 538 ;—*W. and A. pr.* 1, *p.* 93 ;—*J. Grah. Cat. B. pl. p.* 23.—Limonia pentaphylla, *Retz* ?—*Roxb. fl. ind.* 2, *p.* 381,—*Corom.* 1, *t.* 84.) আশশৌড়া *Ashshoura.* ♄ Peninsula of India, Bengal, (Serampore.) Fl. small, white, fragrant ; and fr. R. and C. S.
3. *tetraphylla*, Wall. ♄ Khassya Mountains. Fl. small, white, fragrant, nearly the whole year ; fr. 0.
4. *oxyphylla*, Wall. ♄ Near to *No.* 4. Khassya Mountains.

SCLEROSTYLIS, Bl. (*W. and A. pr.* 1, *p.* 93.)

1. *atalantioïdes*, W. and A. (*l. c.*—Limonia bilocularis, *Roxb. fl. ind.* 2, *p.* 377.) ♄ Coromandel. Fl. small, white, nearly inodorous,—May and June ; fr. July and Aug.

BERGERA, Kön. (*DC. pr.* 1, *p.* 537 ;—*W. and A. pr.* 1, *p.* 94.)

1. *Königii*, L. (*DC. l. c.* ;—*Roxb. Corom.* 2, *t.* 112 ; *fl. ind.* 2, *p.* 375 ; —*W. and A. l. c.* ;—*Wight icon.* 1, *t.* 13 ;—*J. Grah. Cat. B. pl. p.* 24 ;—*Trans. Linn. Soc.* 15, *t.* 5, *f.* 4 ;—*Rheed.* 4, *t.* 53.) বড়শোঙ্গ *Bursunga. Curry-leaf.* ♄ Coromandel, Assam, Kemaon. Fl. small, white, fragrant, C. S. ; fr. H. S. *Leaves* very fragrant, used for seasoning curries, stomachic, and tonic. Dried they retain these qualities, and are sold in the bazars. An infusion of them considered antemetic.

B. CLAUSENEÆ, *W. and A. pr.* 1, *p.* 90.

MURRAYA, Kön. (*DC. pr.* 1, *p.* 537 ;—*W. and A. pr.* 1, *p.* 94.)

1. *exotica*, L. (*DC. l. c.* ;—*W. and A. l. c.* ;—*Wight icon.* 1, *t.* 96 ;—*J. Grah. Cat. B. pl. p.* 24 ;—*Roxb. fl. ind.* 2, *p.* 374, as to the sp. char. only.—Marsana buxifolia, *Sonner. it.* 3, *t.* 139.—Chalcas japonensis, *Lour* ;—*Rumph.* 5, *t.* 18, *f.* 2.) কামিনী *Kamince.* ♄ Monghir.

Foot of the Himalaya. Much cultivated. Fl. middle-sized, white, strongly-fragrant, H. and R. S.; fr. C. S.

2. *paniculata*, Hb. Sm. (*W. and A. pr.* 1, *p.* 94;—*J. Grah. Cat. B. pl. p.* 24.—M. exotica, *Roxb. fl. ind.* 2, *p.* 374, as to the wild plant and description. Chalcas paniculata, *L.*; *Lour.*) কামিনী *Kaminee.* 5 Circars. Table land at Mahableshwur. The Ghauts. Goalpara.—Fl. middle-sized, white, strongly fragrant, H. and R. S; fr. C. S.

3. *sumatrana*, Roxb. (*fl. ind.* 2, *p.* 375;—*W. and A. pr.* 1, *p.* 95.—M. paniculata, *Jack.*; *Mal. Misc.* 1, *p.* 31,—*in Hook. bot. misc.* 2, *p.* 79;—*Hook. exot. fl. t.* 79;—*DC. pr.* 1, *p.* 537; excl. syn. Lour.—*Rumph.* 5, *t.* 17.) 5 China, Cochin-China, Moluccas. Fl. largish, white, sweet-scented, May; fr. 0.

Cookia, Sonner. (*DC. pr.* 1, *p.* 537;—*W. and A. pr.* 1, *p.* 95.)

1. *punctata*, Retz. (*DC. l. c.*;—*W. and A. pr. l. c.*;—*Roxb. fl. ind.* 2, *p.* 382;—*J. Grah. Cat. B. pl. p.* 24.—Quinaria Lansium, *Lour.*;—*Rumph.* 1, *t.* 55.) *Whong-pi.* ♄ China. Fl. small, white, faintly fragrant, Feb. and March; fr. R. S.—*Fruit* very agreeable.

Clausena, Burm. (*DC. pr.* 1, *p.* 538;—*W. and A. pr.* 1, *p.* 95.)

1. *nana*, W. and A. (*l. c. annot.*—Amyris nana, *Roxb. fl. ind.* 2, *p.* 249.) ♄ Moluccas. Fl. minute, fragrant, whitish. In H. C. G. fl. H. S.; fr. R. S. (*Roxb.*)

2. *suffruticosa*, W. and A. (*pr.* 1, *p.* 95. *annot.*—Amyris suffruticosa, *Roxb. fl. ind.* 2, *p.* 250.) ♄ Chittagong. Fl. small, greenish-white, H. S.; fr. R. S.

3. *heptaphylla*, W. and A. (*pr.* 1, *p.* 95. *annot.*;—Amyris heptaphylla, *Roxb. fl. ind.* 2, *p.* 248;—*Trans. Linn. Soc.* 15. *t.* 5, *f.* 2;—*J. Grah. Cat. B. pl. p.* 43.) কারণফল *Karun-phul.* ♄ Calcutta, Serampore. Fl. small, greenish-yellow, anise-scented, H. S.; fr. R. S. The *leaves* when bruised, have the fragrance of fresh anise-seeds.

4. *sumatrana*, W. and A. (*pr.* 1, *p.* 95. *annot.*—Amyris sumatrana, *Roxb. fl. ind.* 2, *p.* 250.) 5 Sumatra. Fl. small, greenish-white, R. S.; fr. C. S. Fresh *leaves*, when bruised, emit the fragrance of a lemon leaf.

5. *punctata*, W. and A. (*pr.* 1, *p.* 95. *annot.*—Amyris punctata, *Roxb. fl. ind.* 2, *p.* 251;) 5 Chittagong. Fl. small, white, H. S.; fr. R. S.

Micromelum, Bl. (*Wight. ill. p.* 107.)

1. *integerrimum*, W. and A. (*pr.* 1, *p.* 94. *annot.*—Bergera integerrima, *Buch.*;—*Roxb. fl. ind.* 2, *p.* 376;—*DC. pr.* 1, *p.* 537.) 5 Banks of the Megna. Fl. small, greenish-white, fragrant, C. S; fr. R. S.

Paramignya, Wight (*ill.* 1. *p.* 108.)

? 1. *citrifolia*, Wight. (Limonia citrifolia, *Roxb. fl. ind.* 2, *p.* 379.) ♄. Chittagong. Fl. middle-sized, white, fragrant, H. S; fr. 0.

Luvunga, Buch. (*Wight ill.* 1, *p.* 108.)

1. *scandens*, Buch. (Limonia scandens, *Roxb. fl. ind.* 2, *p.* 380.) লবঙ্গলতা *Luvunga-luta.* ♄ ◡ Silhet, Chittagong. Fl. middle-sized, white, fragrant, H. S; fr. August and Sept.

POLYCYEMA.

1. *pentaphyllum*, (Amyris pentaphylla, *Roxb. fl. ind.* 2, *p.* 247.) ♄ Cawnpore. Fl. small, whitish, fragrant, H. S.; fr. R. S.;—*Leaves*, when bruised between the fingers, very fragrant. *W. and A.* would refer it to Cookia, from which, as well as from Clausenæ, the many ovula in each cell of the ovary exclude it.

FERONIA, Corr. (*DC. pr.* 1, *p.* 538;—*W. and A. pr.* 1, *p.* 96.)

1. *Elephantum*, Corr. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. Corom.* 2, *t.* 141; *fl. ind.* 2, *p.* 411;—*Wight icon.* 1, *t.* 15;—*J. Grah. Cat. B. pl. p.* 24.—Cratæva Vallanga, *Kön.* Anisifolius, *Rumph.* 2, *t.* 43.) কথবেল *Kuthbel. Elephant or Wood-Apple.* L. ♄ Moluccas. Coromandel. Bombay Presidency, especially at Guzerat. Bengal, (Serampore.) Assam. Fl. small, greenish-white, anise-scented, March; fr. Oct. *Wood* hard, durable. From wounds in the bark exudes a very transparent *gum*, having the properties of Gum Arabic, and said to be better suited for mixing colours than it. The young *leaves* emit a fragrance of anise, and are therefore considered stomachic and carminative. The *pulp* of the fruit affords a very pleasant jelly, so closely resembling black currant jelly, as to be only distinguished by a slight degree of astringency. (*Wight.*)

ÆGLE, Corr. (*DC. pr.* 1, *p.* 538;—*W. and A. pr.* 1, *p.* 96.)

1. *Marmelos*, Corr. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. Corom.* 2, *t.* 143; *fl. ind.* 2, *p.* 579;—*J. Grah. Cat. B. pl. p.* 24;—*Wight icon.* 1, *t.* 16.—Feronia lucida, *Roth.*;—*DC. l. c.*—Cratæva Marmelos, *L.*;—*Rheed* 3, *t.* 37.—*Rumph.* 1, *t.* 81.) বেল *Bel.* ♄ Coromandel. Malabar Hill, Bombay. Elephanta. Bengal, (Serampore.) Assam. Common about the Pagodas, as the Natives have a deep reverence for this tree. Fl. middle-sized, greenish-white, fragrant, May; fr. Oct. and Nov. The *fruit* is nutritious, warm, cathartic, delicious, exquisitely fragrant. Its aperient and detersive qualities, and its efficacy in removing habitual costiveness, have been proved by constant experience. (*Roxb. in As. Res.* 2, *p.* 349.) The *bark of the root* is sometimes used by the Natives in compound decoctions against intermittent fevers; while the fresh expressed *juice of the leaves*, diluted, is praised in catarrhs and feverishness—the *leaves* in a poultice against ophthalmias and a *decoction of the immature dried fruit* against diarrhœa and dysentery. The *mature fruit*, mixed with tamarind juice, forms a sort of antifebrile sherbet. (*Trans. Med. and Phys. Soc. Calcutta.* 4, *p.* 110.) The astringent *rind of the fruit* is used in dyeing yellow, while the glutinous and tenacious matter which surrounds the seeds is considered an excellent addition to mortar, especially in well-building. (*Royle.*)

CITRUS, L. (*DC. pr.* 1, *p.* 539;—*W. and A. pr.* 1, *p.* 97.)

1. *decumana*, L. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 393;—*J. Grah. Cat. B. pl. p.* 25;—*Risso and Poit. Hist. d'Or. t.* 61.

—*Rumph.* 2, *t.* 24, *f.* 2.) বাতাবিনেবু *Batavi-neboo. Shaddock, Pumplemuss.* 5 Moluccas, Sunda Islands. Cultivated in India. Fl. large, white, fragrant, Feb. and March; fr. Sept. Oct. and Nov.

2. *Aurantium,* L. (*DC. pr.* 1, *p.* 639;—*Roxb. fl. ind.* 3, *p.* 392;—*W. and A. pr.* 1, *p.* 97;—*J. Grah. Cat. B. pl. p.* 25.—C. nobilis, *Lour.*;—*Rumph.* 2, *t.* 34, 35.) কমলানেবু *Kumla-neboo.* নারঙ্গী *Narungee. Sweet Orange.* ♄ Moluccas. Circars, Aurungabad, Khassya Mountains, &c. Fl. large, white, fragrant. In H. C. G. fl. Feb.; fr. C. S. (*Roxb.*) Here it has never fruited.

3. *Bergamia,* Risso and Poit. (*Hist. d'Or. t.* 53;—*W. and A. pr.* 1, *p.* 98.—C. acida, *Roxb. fl. ind.* 3, *p.* 390;—*Rumph.?* 2, *t.* 26, *f.* 1. (Limo ungrentarius; not L. tuberosus); *t.* 26, *f.* 3. (L. taurinus, not L. ungrentarius); *t.* 27; *t.* 28. (L. ventricosus, not L. ferus.) *Bergamotte* or *Acid Lime.* 5 Moluccas. Sunda Islands, Peninsula of India, Bengal, Assam, &c. Fl. white, fragrant, H. S.; fr. R. S., sometimes C. S.

   α. *Pati-neboo;* পাতিনেবু Common, round Lime. Bengal. (Serampore.)

   β. *Kagujee-neboo;* কাগজীনেবু Long, small Lime. Bengal. (Serampore.)

   γ. *Gora-neboo;* গোঁড়ানেবু Thick-skinned, small, oval Lime. Bengal, (Serampore.)

   δ. *Cheena-gora-neboo;* চীনা গোঁড়ানেবু China, yellow-juiced Lime. Cultivated.

   ε. *Kamuralee-neboo;* কামরালীনেবু Large, oval, smooth-skinned Lime. Bengal, (Serampore.)

   ρ. *Rungpore-neboo;* রঙ্গপুরনেবু Round, smooth-skinned Lime. Cultivated.

   η. *Taba-neboo;* তাবানেবু A large, globose, spongy-skinned Lime. Bengal.

   θ. *Arabian Lime;* A large, thick-skinned sort from Muscat.

4. *Limetta,* Risso and Poit. (*W. and A. pr.* 1, *p.* 98.) *Sweet Lime.* 5 Moluccas, &c. Fl. white, fragrant, H. S.; fr. R. S.

   α. Risso and Poit. (*o. c. t.* 57.—C. Limetta, *DC. pr.* 1, *p.* 539.) Cultivated.

   β. Risso and Poit. (*o. c. t.* 59.—C. Hystrix, *DC. l. c.*;—*Rumph.* 2. *t.* 30;—*Roxb. fl. ind.* 3, *p.* 392. 9*th.*) মিঠানেবু *Mita-neboo,* Cultivated.

5. *Limonum,* Risso and Poit. (*W. and A. pr.* 1, *p.* 98;—*DC. pr.* 1, *p.* 539.—C. Medica, *Roxb. fl. ind.* 3, *p.* 392; partly *Rumph.?* 2, *t.* 26, *f.* 2. (Limo tuberosus, not L. ventricosus.) কোর্ণনেবু *Korna-neboo.* 5 Garrow Hills. Foot of the Himalaya, &c., Cultivated. Flowers white, tinged with red, fragrant, H. S.; fr. R. S.

6. *medica,* L. (*DC. pr.* 1, *p.* 539;—*W. and A. pr.* 1, *p.* 98;—*Roxb. fl. ind.* 3, *p.* 392, partly.—*Rumph.*? 2, *t.* 25, 29.) বেগপুড়া *Beg-poora, Common Citron.* 5 Foot of the Himalaya, Garrow-Hills, &c. Cultivated. Fl. white, tinged with red, fragrant, H. S; fr. R. S.

   β *digitata;* China. Cultivated.

7. *madurensis*, Lour. (*DC. pr.* 1, *p.* 540.—C. inermis, *Roxb. fl. ind.* 3, *p.* 393.—Limonellus madurensis, *Rumph.* 2, *t.* 31.) ♄ China. Cochin-China. Moluccas. Cultivated. Fl. white, fragrant, H. S; fr. R. S.

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* *Atalantia platystigma*, Wight. ♄ Peninsula of India.—*Triphasia monophylla*, DC. ♄ Timor.—*Limonia alata*, Hb. Madr. Wight ill. 1, t. 41. Ceylon, Neelgherries.—*L. Missionis*, Wall.; Wight. icon. 1, t. 175. Tanjore.—*L. Laureola*, DC. Wall. pl. as. rar. 3, t. 245. Nepal.—*Glycosmis nitida*, W. and A. ♄ Peninsula of India.—*G. triphylla*, Wight. icon. t. 167. ♄ Tanjore.—*G. chylocarpa*, W. and A. ♄ Kandalla, the Ghauts.—*G. macrocarpa*, Wight. ♄ Courtallum.—*G. macrophylla*, Lindl. ♄ Penang.—*G. citrifolia*, Lindl. (Limonia parviflora, Sims; B. M. 50, t. 2416.) ♄ China.—*Sclerostylis racemosa*, Wight. ♄ Peninsula of India.—*S. parvifolia*, Wight. ill. 1, t. 71. ♄ Peninsula of India.—*S. Arnottiana*, Wight. Ceylon.—*S. ceylanica*, Wight. Ceylon.—*S. Roxburghii*, Wight. icon. 1, t. 72. (Amyris simplicifolia, Roxb.) ♄ Penang.—*Clausena Willdenowii*, W. and A.; Wight. icon. 1, t. 14. ♄ Chingleput, near Madras.—*C. pubescens*, W. and A. ♄ Peninsula of India.—*Paramignya monophylla*, Wight. (Micromelum? monophyllum, Wight. ill. 1, t. 42.) ♄ ◡ Courtallum, Ceylon, Bombay.—*Luvunga tavoyana*, Lindl. Tavoy.—*Citrus vulgaris*, Risso and Poit. Rumph. 2, t. 33. ♄ Moluccas. Bitter or Seville Orange.

ORDER LXXIX.—SPONDIACEÆ, Kth.—Lindl. Nat. Syst. p. 106.

THE HOGPLUM TRIBE.

Trees, of 3 genera and 8 species: 2 from S. America and the W. Indies; 1 from the Society Islands; 2 from Bourbon and Mauritius; and 3 (*Spondias*) from the E. Indies.—With Lannea, G. and P. we are not acquainted.—*Fruit* of several species eatable.

SPONDIAS, L. (*DC. pr.* 2, *p.* 74;—*W. and A. pr.* 1. *p.* 172.)

1. *lutea*, L. (*DC. pr.* 2, *p.* 75;—*Bojer Hort. Maurit. p.* 81. S. Myrobalanus, *L.*—*Jacq. amer. p.* 139, *t.* 88.—*Gärtn. fr.* 2, *p.* 102. *t.* 204.) ♄ W. Indies. H. S. 1842.

2. *mangifera*, Pers. (*DC. o. c. p.* 75;—*W. and A. o. c. p.* 173;—*Roxb. fl. ind.* 2, *p.* 451;—*J. Grah. Cat. B. pl. p.* 42;—*Wight. ill.* 1, *t.* 76. S. amara, *Lam.*—S. Amra, *Buch.*—Mangifera pinnata, *Kön.*—*L. fil;* not Lam.—Poupartia mangifera, *Bl.*;—*Rheed.* 1, *t.* 50;—*Rumph.* 1, *t.* 61. ?) আমড়া *Amra*. L. ♄ Peninsula of India, Bengal, (Serampore.) Valleys of Deyra Dhoon and Kyarda. Fl. small, white, March; fr. Dec. and Jan.—*Fruit*, when ripe, eaten raw; unripe it is pickled, put in curries, made into tarts, &c. From wounds in the bark a large quantity of a pure gum exudes, which soon hardens into a substance like gum arabic.

3. *acuminata*, Roxb. (*fl. ind.* 2, *p.* 453;—*W. and A. pr.* 1, *p.* 173;—*J. Grah. Cat. B. pl. p.* 42.) ♄ Malabar. Hills near Kennery Caves. Was introduced into H. C. G. in 1808, but had not fl. in 1814.—Here the plant has been cultivated for twelve years, without fl.
4. *longifolia*, Roxb. (*fl. ind* 2, *p.* 453.) ♄ Mauritius.—Introduced into H. C. G. in 1810. Fl.?
5. *axillaris*, Roxb. (*fl. ind.* 2, *p.* 453.) 5 Nepal.—In H. C. G. fl. March and April; fr. R. S. (*Roxb.*)
6. *dulcis*, Forst. (*DC. pr.* 2, *p.* 75;—*Roxb. fl. ind.* 2, *p.* 452;—*J. Grah. Cat. B. pl. p.* 42.—S. Cytheræa, *Sonn. it.* 2, *t.* 123;—*Lam. ill. t.* 384.—*Gärtn. fr.* 2, *p.* 101, *t.* 103.) বিলাতিআমড়া *Bilati-amra. Otaheyti Apple-tree.* L. ♄ Society Islands. Cultivated in India. Fl. small, greenish-yellow, March; fr. Dec. and Jan. *Fruit* used in the same manner as that of *No.* 1.

Poupartia, Commers. (*DC. pr.* 2, *p.* 75.)

1. *borbonica*, Lam. (*DC. l. c.*) 5 Bourbon. In H. C. G. fl. in March.

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* *Spondias purpurea*, L. 5 W. Indies.—*S. lutea*, L. 5 W. Indies.

ORDER LXXX.—RHAMNACEÆ,—Lindl. Nat. Syst. p. 107.

THE BUCKTHORN TRIBE.

Trees and shrubs, simple or climbing, by Lindl. referred to 30 genera. Of species, DC. pr. and Spreng. syst. enumerate 58 for S. America, Mexico and the W. Indies; 22 for New Holland and the South Sea Islands; 16 for Europe; 15 for N. America; 7 for China; 5 for Mauritius; 4 for N. Africa; 3 for the Canaries; 3 for Timor; 2 for Persia; 2 for Senegal; 2 for St. Helena; 1 for Dahuria; 1 for Siberia; 1 for the Azores; 1 for Guinea; 1 for Abyssinia; 1 for Tristan d'Acunha, and 1 for the Antarctic Islands. S. Africa possesses 50 species, (*Harvey*); and the E. Indies, according to our materials, 55; viz. 2 of *Paliurus;* 25 of *Zizyphus;* 5 of *Berchemia;* (3 uncertain. DC.) 2 of *Sageretia;* 1 of *Ventilago;* 6 of *Rhamnus;* 1 of *Scutia;* 1 of *Hovenia;* 2 of *Colubrina;* 3 of *Ceanothus;* and 4 of *Gouania.* With Blume's two new genera, *Lepionurus* and *Crypteronia*, and the Javanese species in general we are not acquainted. Of the Indian forms, 23 have been discovered at the foot of the Himalayas and in Nepal; the rest are tropical. Properties under the species.

Zizyphus, Tournef. (*DC. pr.* 2, *p.* 19;—*W. and A. pr.* 1, *p.* 161.)

1. *rugosa*, Lam. (*DC. o. c. p.* 20;—*W. and A. o. c. p.* 162;—*J. Grah. Cat. B. pl. p.* 39;—*Wight. icon.* 2, *t.* 339;—Z. latifolia, *Roxb. fl. ind. p.* 607; *ed. Carey*, 2, *p.* 355;—*DC. l. c.*) 5 Travancore, the Ghauts. Khassya Mountains. Assam. Oude. Nepal. Fl. minute, greenish, March; fr. R. S.—*Fruit* eaten by the Natives. (*J. Grah.*)

2. *glabrata*, Heyne. (*W. and A. pr.* 1, *p.* 162 ;—*Wight. icon.* 1, *t.* 282, —Z. trinervia, *Roxb. fl. ind.* 1, *p.* 606 ; *ed. Carey*, 2, *p.* 354 ;—not Poir.) ♄ Mysore. Fl. small greenish-yellow. In H. C. G. fl. H. S. ; fr. Oct. and Nov. (*Roxb.*)
3. *Xylopyrus*, Willd. (*DC. pr.* 1, *p.* 21 ;—*W. and A. pr.* 1, *p.* 162 ;—*Roxb. fl. ind.* 1, *p.* 611 ; *ed. Carey*, 2, *p.* 360 ;—*J. Grah. Cat. B. pl. p.* 39. Z. elliptica, *Roxb. fl. ind.* 1, *p.* 610 ; *ed. Carey*, 2, *p.* 359.—Z. Caracutta, *Buch.* ;—*Roxb. fl. ind.* 1, *p.* 612 ; *ed. Carey*, 2, *p.* 361.—Z. orbicularis, *Schult.* ;—*DC. pr.* 2, *p.* 21.) ♄ Courtallum. The Ghauts. Hills from Shergotty to Roghonautpore. Fl. small, greenish-yellow, R. S. ; fr. C. S. Fruit used by the shoemakers to blacken leather, and to make blacking. (*Dr. Gibson.*)
4. *Jujuba*, Lam. (*DC. pr.* 2, *p.* 21 ;—*W. and A. pr.* 1, *p.* 162 ;—*Roxb. fl. ind.* 1, *p.* 608 ;—*ed. Carey*, 2, *p.* 357 ;—*Wight icon.* 1, *t.* 99 ;—*J. Grah. Cat. B. pl. p.* 39.—Z. sororia, *Schult.* ;—*DC. l. c.*—Rhamnus Jujuba, *L.* ;—*Rheed.* 4, *t.* 41 ;—*Rumph.* 2, *t.* 36.) কুলগাছ *Kool-gachh*, বয়র *Byur.* ♄ Moluccas, Sunda Islands. Both Peninsulas of India, Bengal, (Serampore,) Assam. The valleys of Gurhwal and Sirmore. Fl. small, greenish-yellow, R. S. ; fr. C. S. *Fruit* eatable.
   β. *fructu oblongo* ; oblong fruited. নারিকেলীকুল *Narikelee-kool.* বড় বয়র *Buru-Byar.* Fruit eaten by Europeans, as well as Natives ; lately much improved by culture.
5. *nummularia*, W. and A. (*pr.* 1, *p.* 162.—Z. microphylla, *Roxb. fl. ind.* 1, *p.* 613 ;—*ed. Carey*, 2, *p.* 262.—Z. rotundifolia, *Lam.* ;—*DC. pr.* 2, *p.* 21.—Rhamnus nummularia, *Burm. ind. p.* 61.) ♄ Palamcotta, Courtallum. Fl. small, greenish-yellow, May and June ; fr. 0.
6. *Oenoplia*, Mill. (*DC. pr.* 2, *p.* 21 ;—*W. and A. pr.* 1, *p.* 163 ;—*Roxb. fl. ind.* 1, *p.* 611 ;—*ed. Carey*, 2, *p.* 360 ;—*J. Grah. Cat. B. pl. p.* 39.—Z. scandens, *Roxb. H. B. p.* 17.—Z. Napeca, *Roth.* ;—*Roxb. fl. ind.* 1, *p.* 613 ;—*ed. Carey*, 2, *p.* 363, not Willd. ;—*Burm. Zeyl. t.* 61.) শ্যাকুল *Shya-kool.* ♄ ◡ Both Peninsulas of India. Ceylon. Bengal, (Serampore.) Rajmahl Hills. Assam. Banks of the Jumna, near Delhi. Kheree Pass. Fl. small, greenish-yellow, H. S. ; fr. R. S.
7. *albens*, Roxb. (*fl. ind.* 1, *p.* 607 ;—*ed. Carey*, 2, *p.* 355.) ♄ China. In H. C. G. fl. April. (*Roxb.*)
8. *nitida*, Roxb. (*fl. ind.* 1, *p.* 609 ;—*ed. Carey*, 2, *p.* 358.) ♄ China. Fl. small, yellow. In H. C. G. fl. H. S. ; fr. C. S. (*Roxb.*)
9. *vulgaris*, Lam. (*DC. pr.* 1, *p.* 19 ;—*Roxb. fl. ind.* 1, *p.* 609 ;—*ed. Carey*, 2, *p.* 358 ;—Rhamnus Zizyphus, *L.*) ♄ Syria, and thence introduced into Persia and Hindoosthan. In H. C. G. fl. R. S. ; fr. C. S. (*Roxb.*)
10. *Lotus*, Lam. (*DC. pr.* 1, *p.* 19 ;—*Roxb. fl. ind.* 1, *p.* 610 ;—*ed. Carey*, 2, *p.* 359.—Rhamnus Lotus, *L.*) ♄ N. Africa, Persia. In H. C. G. fl. H. S. (*Roxb.*)

11. *Roxburghiana*, (Z. tomentosa, *Roxb. fl. ind.* 1, *p.* 611 ;—*ed. Carey*, 2, *p.* 360 ; not Poir.) ♄ Chittagong. Introduced into H. C. G. in 1810, but had not fl. in 1814.
12. *glabra*, Roxb. (*fl. ind.* 1, *p.* 614 ;—*ed. Carey*, 2, *p.* 364.) ♄ ◡ Chittagong. Introduced into H. C. G. in 1810, but had not fl. in 1814.
13. *incurva*, Roxb. (*fl. ind.* 1, *p.* 614.—*ed. Carey*, 2, *p.* 364.) 5 Deyra Dhoon. Fl. small, greenish. In H. C. G. fl. R. S. (*Roxb.*)
14. *flexuosa*, Wall. (*Roxb. fl. ind. ed. Carey*, 2, *p.* 365.) L. ♄. Gossain Than. Mountains towards Cashmere. In H. C. G. Fl. ?

Berchemia, Neck. (*DC. pr.* 2, *p.* 22 ;—*W. and A. pr.* 1, *p.* 163.)

1. *floribunda*, Wall. Cat. (Zizyphus floribundus, *Wall.*;—*Roxb. fl. ind. ed. Carey*, 2, *p.* 368.) ♄ Khassya Mountains. Nepal, Kemaon. Fl. small, white. Introduced in 1839. Has not fl.

Sageretia, Brongn. (*G. Don's Mill. dict.* 2, *p.* 28.)

1. *oppositifolia*, Brongn. (Berchemia ? oppositifolia, *Wall. Cat.*—Zizyphus oppositifolia, *Wall.*;—*Roxb. fl. ind. ed. Carey*, 2, *p.* 370.—Rhamnus trigynus, *Don.*;—*DC. pr.* 2, *p.* 27 ; ex. pte.) ♄ ◡ Deyra Dhoon. Fl. small, greenish, R. S. ; fr. C. S.
2. *hamosa*, Brongn. (Berchemia? hamosa, *Wall. Cat.*—Zizyphus hamosa, *Wall.*—*Roxb. fl. ind. ed. Carey*, 2, *p.* 369.—Rhamnus trigynus, *Don.*;—*DC. pr.* 2, *p.* 27, ex. pte.) ♄ ◡ Nepal. Fl. small, greenish. In H. C. G. Fl. ?

Ventilago, Gärtn. (*DC. pr.* 2, *p.* 38 ;—*W. and A. pr.* 1, *p.* 164.)

1. *maderaspatana*, Gärtn. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. Corom.* 1, *t.* 76 ;—*fl. ind.* 1, *p.* 629 ;—*ed. Carey*, 2, *p.* 413 ;—*Wight. icon.* 1, *t.* 163 ;—*J. Grah. Cat. B. pl. p.* 40 ;—*Gärtn. fr.* 1, *t.* 49 ;—*Rumph.* 5, *t.* 2.) রক্তপিট *Rukta-pita*. L. ♄ ◡ Moluccas. Both Peninsulas of India, Hills of Bengal, Assam, Nepal, Kemaon. Fl. small, greenish, offensively smelling, C. S. ; fr. H. S.—*Bark* used for cordage. (*As. Res.* 6, *p.* 352.) According to Rumphius, the Amboyna fishermen use the long climbing stems instead of ropes.

Rhamnus, L. (*DC. pr.* 2, *p.* 23 ;—*W. and A. pr.* 1, *p.* 164.) *Buckthorn.*

1. *virgatus*, Roxb. (*fl. ind.* 1, *p.* 604 ;—*ed. Carey*, 2, *p.* 351 ;—*DC. pr.* 2, *p.* 24.) ♄ Neelgherries, Mussooree, Gurhwal, Deyra Dhoon, Kemaon. Fl. very small, greenish-yellow. In H. C. G. fl. H. S ; fr. Oct. and Nov. (*Roxb.*)
2. *incanus*, Roxb. (*fl. ind.* 1, *p.* 603 ; *ed. Carey*, 2, *p.* 350.) ♄ Moluccas. Fl. small, greenish-yellow. In H. C. G. fl. C. S. ; fr. H. S. (*Roxb.*)

Scutia, Commers. (*W. and A. pr.* 1, *p.* 165.)

1. *indica*, Brongn. (*W. and A. l. c.*;—*Wight. ill.* 1, *t.* 73 ;—*J. Grah. Cat. B. pl. p.* 39.—Rhamnus circumscissus, *L.*;—*Roxb. fl. ind.* 1, *p.* 603 ; *ed. Carey*, 2, *p.* 350.—R. myrtinus, *Burm.*;—*DC. pr.* 2, *p.*

27.—Ceanothus circumscissa, *Gärtn. fr.* 2, *t.* 106;—*DC. pr.* 2, *p.* 30.—C. zeylanica, *Heyne*;—*DC. l. c.*—Celastrus zeylanica, *Roth.*; —*DC. pr.* 2, *p.* 9;—*Rheed* 5, *t.* 30, 31.) ♄ Peninsula of India. Fl. small, greenish-yellow, Jan., Feb. and March; fr. Dec. and Jan.

Hovenia, Thunb. (*DC. pr.* 2, *p.* 40.)

1. *dulcis*, Thunb. (*Roxb. fl. ind.* 1, *p.* 630;—*ed. Carey*, 2, *p.* 414;—*J. Grah. Cat. B. pl. p.* 40;—*B. M.* 50, *t.* 2360;—*DC. l. c.*—H. inequalis, *DC. l. c.*—H. acerba, *Lindl.*;—*B. Reg.* 6, *t.* 501;—*DC. l. c.*) L. ♄ China. Japan, Nepal, Kamaon, Mussooree. Fl. small, white, H. S; fr. R. S.—*Peduncles* of the fruit extremely enlarged and succulent, and are in much esteem in China, resembling in flavour, as it is said, a ripe Pear. (*Lindl.*)

Colubrina, Rich. Brongn. (*W. and A. pr.* 1, *p.* 165.)

1. *asiatica*, Brongn. (*W. and A. o. c. p.* 166;—*Wight ill.* 1, *t.* 74;—*J. Grah. Cat. B. pl. p.* 39.—Ceanothus asiaticus, *L.*;—*DC. pr.* 2, *p.* 30;—*Roxb. fl. ind.* 1, *p.* 615;—*ed. Carey*, 2, *p.* 373.—C.? capsularis, *Forst.*;—*DC. pr.* 2, *p.* 32;—*Burm. Zeyl. t.* 48.) L. ♄ Both Peninsulas of India. The Ghauts. Elephanta. Siam, Singapore, Amherst, Moulmein, Ceylon, Mauritius. Fl. small, pale-greenish, April and May; fr. June and July.
2. *nepalensis*, G. Don. (*Mill. dict.* 2, *p.* 36.—Ceanothus nepalensis, *Wall.*;—*Roxb. fl. ind. ed. Carey*, 2, *p.* 375.) ♄ Nepal. Fl. small, greenish, May; fr. June and July.

? 3. *macrophylla*, Wall. ♄ Martaban. In H. C. G. Fl.?

Vitmannia, W. and A. (*pr.* 1, *p.* 166; not Vahl.—Willemetia, *Brongn.*; not Neck. Cassini, &c.)

1. *africana*, W. and A. (*l. c.*—*Wight icon.* 2, *t.* 490.—Willemetia africana, *Brongn.*—Ceanothus africana, *L.*;—*DC. pr.* 2, *p.* 32.) ♄ C. G. H. In H. C. G. Fl.?

Gouania, Jacq. (*DC. pr.* 2, *p.* 38;—*W. and A. pr.* 1, *p.* 166.)

1. *leptostachya*, DC. (*o. c. p.* 40;—*W. and A. l. c.*—G. tiliæfolia, *Roxb. Corom.* 1, *t.* 98;—*fl. ind.* 1, *p.* 632;—*ed. Carey*, 2, *p.* 417; not Lam.) ♄ ◡ Circars. Chittagong, Bengal, (Serampore.) Assam. Deyra Dhoon. Fl. small, greenish, R. and C. S.; fr. H. S.
2. *madagascariensis*, Rich. ♄ ◡ Bourbon. Fl. 1840.

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* *Paliurus virgata*, Don.; B. M. 52, t. 2535. ♄ Nepal.—*Z. mirzaporensis*, Royle. ♄ from Shergatty to Roghonautpore.—*Berchemia parviflora*, Wall.; Wight icon. 1, t. 19. ♄ Peninsula of India.—*Sageretia theezans*, Brongn. ♄ China.—*Rhamnus Wightii*, W. and A.; Wight icon. 1, t. 159. ♄ Courtallum.—*Colletia spinosa*, Lam. ♄ Brazil.—*Scutia Commersonii*, Brongn. ♄ Mauritius.—*Gouania microcarpa*, DC. ♄ ◡ Courtallum.—*G. nepalensis*, Wall. ♄ ◡ Nepal.

ORDER LXXXI.—CHAILLETIACEÆ, DC. Lindl. Nat. Syst. p. 108.

Trees or shrubs, referred by Lindl. to 4 genera. Of their species, 3 have been found in Guiana; 2 in Sierra Leona; 2 in Madagascar; 1 in Timor; and 1 in Silhet. To the latter R. Br. in Wall. Cat. adds 2 more, one from Penang, the other from Tavoy. Properties nearly unknown.

MOACURRA, Roxb. (*fl. ind.* 2, *p.* 69.)

1. *gelonioides*, Roxb. (*l. c.*) ♄ Silhet. Fl. small, greenish. In H. C. G. fl. April and May; fr. Dec. (*Roxb.*)

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* *Chailletia pedunculata*, DC. ♄ Cayenne.—*C. timoriensis*, DC. ♄ Timor. —*C. Dichapetalum*, R. Br. ♄ Madagascar.—*Tapura guianensis*, Aubl. ♄ Guiana.—*Moutabea guianensis*, Aubl. ♄◡ Guiana.

ORDER LXXXII.—BURSERACEÆ, Kth. Lindl. Nat. Syst. p. 110.

Trees or shrubs, (excluding Colophonia,) referred by Lindl. to 12 genera. Of their species, 29 inhabit S. America, Mexico and the W. Indies; 3-4 Arabia; 3 Madagascar; 2 S. Africa; 1 Congo; 1 Mauritius; and 1 Timor. In the E. Indies 18-19 forms have been found: 7 of *Canarium*; 4-5 of *Protium*; 3 of *Boswellia*; 2 of *Balsamodendron*; 1 of *Icica*; and 1 of *Garuga*;—nearly all natives of the tropics.

They have all an abundance of fragrant resinous juice, which is, however, destitute of the acridity and staining property of that of Anacardiaceæ—*Balsam of Acouchi* is produced by Icica Aracouchini, Aubl.; *Gum elemi* by Icica heptaphylla, Aubl.; *Balm of Gilead* by Balsamodendron gileadense Kth.; *Myrrh* by B. Myrrha, Ehrenb. and Hempr.; *Opobalsamum* or *Balsam of Mecca*, by B. Opobalsamum, Kth.; a substance like Gum elemi by Icica Icicariba, DC. and Carana,—and a yellow concrete essential oil by Bursera acuminata, Willd. (*Lindl.*)

BOSWELLIA, Roxb. (*DC. pr.* 2, *p.* 76;—*W. and A. pr.* 1, *p.* 174.)

1. *serrata*, Stackh. (B. thurifera, *Colebr.*;—*Roxb. fl. ind.* 2, *p.* 383;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 42.) শালাই *Salaï.* লবান *Luban.* L. ♄ Mountains of Coromandel. S. Concan. Jungles above Rajoor. Hill of Shendoor in the Chichooree Talook, of the Belgaum Collectorate. Bundlekund. Fl. smallish, greenish-white, March and April; fr. C. S.—This tree produces the gum-resin, *Olibanum*, (কুঁদরু *Koonduroo*,) a substance chiefly used as a grateful incense, but which also possesses stimulant, astringent, and diaphoretic properties. (*Ainslie.*)

CANARIUM, L. (*DC. pr.* 2, *p.* 79;—*W. and A. pr.* 1, *p.* 174.)

1. *commune*, L. (*DC. l. c.*;—*W. and A. o. c. p.* 175;—*Kön. in ann. bot.* 1, *p.* 260. *t.* 7, *f.* 2;—*Roxb. fl. ind.* 3, *p.* 137.—C. Mchenbethene,

Gärtn. fr. 2, *p.* 98. *t.* 102 ?—Amyris zeylanica, *Retz.*—Balsamodendron zeylanicum, *Kth.*;—*DC. pr.* 2, *p.* 76.—Colophonia mauritiana, *DC. pr.* 2, *p.* 79.—Bursera paniculata, *Lam.*—*Rumph.* 2, *t.* 47.) L. ♄ Moluccas. Ceylon. Mauritius. Peninsula of India. Introduced into H. C. G. in 1798, but had not fl. up to 1814. The *resinous juice* of this tree has the same properties as the Balsam of Copaiva. The three-cornered *nuts* are eaten in Java both raw and dressed, and an oil is expressed from them, which is used at table when fresh, and for burning when stale. The raw nuts are, however, apt to produce diarrhœa. (*Ainslie.*)

2. *strictum*, Roxb. (*fl. ind.* 3, *p.* 138;—*W. and A. pr.* 1, *p.* 175.) ♄ Tinevelly. Introduced into H. C. G. in 1808, but had not fl. in 1814. Known in Malabar under the name of the *Black Dammer-tree*, in contradistinction to Vateria indica, or white Dammer-tree. It is common in the alpine forests about Courtallum in the Tinevelly district, and is there regularly rented for the sake of its Dammer. This is transparent and of a deep brownish yellow or amber colour, when held between the eye and the light, but when adhering to the tree has a bright shining black appearance. (*Wight.*)

3. *bengalense*, Roxb. (*fl. ind.* 3, *p.* 136.) L. ♄ Assam. Fl. small. In H. C. G. fl. May and June; fr. Jan. and Feb. (*Roxb.*) From fissures and wounds in the bark, a large quantity of very pure, clear, amber-coloured resin exudes, which soon becomes hard and brittle, and is not unlike *Copal*, yet the natives set little or no value on it. (*Roxb.*)

4. *nigrum*, Roxb. (*fl. ind.* 3, *p.* 138.—Marignia acutifolia, *DC. pr.* 2. *p.* 79.—Dammara nigra, *Rumph.* 2, *p.* 160, *t.* 52, 53.) L. ♄ Amboyna, and other Molucca Islands. Fl. small. In H. C. G. fl. May. A reddish, soft, viscid, heavy-smelling substance exudes from wounds in the bark. (*Rumph.*)

5. *sylvestre*, Gärtn. (*fr. p.* 99, *t.* 102;—*DC. pr.* 2, *p.* 79;—*Roxb. fl. ind.* 3, *p.* 137.—C. sylvestre alterum, *Rumph.* 2, *p.* 155, *t.* 49.—C. Pimela, *Kön.*;—*Ann. bot.* 1, *p.* 361, *t.* 7, *f.* 1;—*DC. pr.* 2, *p.* 80.—Pimela nigra, *Lour.*) ♄ Amboyna. Cochin China, China. Introduced into H. C. G. in 1798, but had not fl. up to 1814.

Icica, Aubl. (*DC. pr.* 2, *p.* 77;—*W. and A. pr.* 1, *p.* 177.)

1. *bengalensis*, (I. indica, *W. and A. l. c.*—Bursera serrata, *Wall.*;—*Colebr. in Linn. soc. trans.* 15, *p.* 362, *t.* 4.—Schinus bengalensis, Saharia and Niara, *Hb. Buch.*) L. ♄ Chittagong, Assam. Fl. very small, green, March and April.—*Timber* close-grained, hard, as tough, but heavier than oak, used for furniture by the Natives.

Balsamodendron, Kth. (*DC. pr.* 2, *p.* 76;—*Wight ill.* 1, *p.* 185.)

1. *Berryanum*, (B. Berryi, *Arn.*;—*Wight ill. l. c.*—Protium gileadense, *W. and A. pr.* 1, *p.* 177, excl. syn. Kth. DC. and Vahl.—Amyris gileadensis, *Roxb. fl. ind.* 2, *p.* 246, excl. syn. Willd. and "Arabia.") ♄ Peninsula of India, where it is constantly used for making fences.

(*Wight.*) Was introduced, by Dr. Berry, into H. C. G. in 1798, but had not fl. up to 1814.

2. *Roxburghianum*, Wall. (Protium Roxburghianum, *W. and A. pr.* 1, *p.* 176.—Amyris acuminata, *Roxb. fl. ind.* 2, *p.* 246 ;—not Poir.) ♄ Moluccas. Fl. small, yellowish, May ; fr. 0.—The bark and all the tender parts, on being bruised or wounded, discharge a small quantity of pale whey-coloured *liquid*, which possesses a fragrance somewhat like that of an orange leaf. (*Roxb.*)

3. *Agallocha*, W. and A. (*pr.* 1, *p.* 96, *annot.*—B. Roxburghii, *Arn. ;—Wight ill.* 1, *p.* 185.—Amyris Agallocha, *Roxb. H. B. p.* 28.—A Commiphora, *Roxb. fl. ind.* 2, *p.* 244, excl. syn. Jacq.) গুগল *Googgul.* ♄ Assam, Garrow-Hills. Fl. small, reddish, Feb. and March ; fr. 0. Produces the *Gum Bdellium* of commerce, and perhaps of Dioscorides. (*Royle.*) The whole plant, while growing, is considerably odoriferous, particularly when any part is broken or bruised, and diffuses to a considerable distance around a grateful fragrance, like that of the finest myrrh. (*Roxb.*)

MARIGNIA, Commers. (*DC. pr.* 2, *p.* 79.)

1. *obtusifolia*, DC. (*l. c.*—Bursera obtusifolia, *Lam.*—Dammara graveolens, *Gärtn. fr.* 2, *p.* 100. *t.* 103. *f.* 11, excl. syn. Rumph.) ♄ Mauritius, where it is called *Colophane bastard.*—Fl. small, whitish, May ; fr. 0.

SORINDEIA, Pet. Th. (*DC. pr.* 2, *p.* 80 ;—*W. and A. pr.* 1, *p.* 170.)

1. *madagascariensis*, (*DC. l. c. ;—W. and A. l. c.*—Mangifera pinnata, *Lam. ;*—not L.) ♄ Madagascar, where the French call it *Manguier à grappes.*—Fl. small, greenish, Feb ; fr. May 1836.

2. ? *attenuata*, Wall. ♄ Penang.—March 1835.

GARUGA, Roxb. (*DC. pr.* 2, *p.* 80 ;—*W. and A. pr.* 1, *p.* 175.)

1. *pinnata*, Roxb. (*Corom.* 3, *t.* 208 ;—*fl. ind.* 2, *p.* 400 ;—*DC. o. c. p.* 81 ;—*W. and A. l. c. ;—J. Grah. Cat. B. pl. p.* 43 ;—*Rheed* 4, *t.* 33.) জুম *Joom.* L. ♄ Coromandel. The Ghauts. The hilly parts of the Concan. Bengal, (Serampore.) Assam. Deyra Dhoon, Kyarda. Flowers smallish, cream-coloured, March ; fr. C. S.—*Fruit* eaten by the Natives raw or pickled.

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* *Boswellïa glabra*, Roxb. Corom. 3, t. 207. ♄ Mountains of Coromandel, Deccan.—*Bursera gummifera*, Jacq. ♄ W. Indies.—*B. acuminata*, Willd. ♄ St. Domingo.—*Protium caudatum*, W. and A. ♄ Peninsula of India.—*P. pubescens*, W. and A. ♄ Peninsula of India.—*P. javanicum*, Burm, Rumph. 7. t. 23. ♄ Java.—*Icica Aracouchini.* ♄ Guiana. —*I. guianensis*, Aubl. ♄ Cayenne. *I. heptaphylla*, Aubl. ♄ Guiana.—*I Icicariba*, DC. ♄ Brazil.—*Balsamodendron Wightii*, Arn. ♄ Peninsula of India.—*B. gileadense*, Kth. ♄ Arabia.—Was, in 1837, introduced into the Bombay Hort. Soc. Gardens from Mecca.—*Hedwigia balsamifera*, Swz. ♄ Hayti.

ORDER LXXXIII.—EUPHORBIACEÆ, Ad. Juss.—Lindl. Nat. Syst. p. 112.

THE EUPHORBIUM TRIBE.

As we have but extremely insufficient materials regarding this large family, we shall abridge from Lindley's remarks (*l. c.*) as much as will suit our purpose. "Trees, shrubs, or herbaceous plants, often abounding in acrid milk. The order, which probably does not contain fewer than 1500 species, exists in the greatest abundance in equinoctial America, where about 3-8ths of the whole number have been found, sometimes in the form of large trees, frequently of bushes, still more usually of diminutive weeds, and occasionally of deformed, leafless, succulent plants, resembling Cactaceæ in their port, but differing from them in every other particular. In the Western world they gradually diminish, as they recede from the equator, so that not above 50 species are known in N. America, of which a very small number reaches as far as Canada.—There are about 120 species from Europe, including the basin of the Mediterranean; of these 16 only are found in Great Britain, and 7 in Sweden." (*Lindl.*) S. Africa contains 100 species, (*Harvey.*) Of Indian, Roxb. in his fl. ind. describes 112. What may be the amount of Blume's Javanese Euphorbiaceæ, we cannot ascertain, his works being inaccessible to us. That their number however, must be considerable, we conclude from his 21 new genera, enumerated by Lindl. Our ignorance is still more increased by the Catalogues of Heyn's, Klein's, Rottler's, Buchanan's, Finlayson's, Wallich's, Wight's, and Royle's discoveries in this order being unpublished.

"The general property of this order is that of exciting, varying greatly in degree, and consequently in effect. This principle resides chiefly in the milky secretion of the order, and is most powerful in proportion as the secretion is abundant. The smell and taste of a few are aromatic; but in the greater part the former is strong and nauseous, the latter acrid and pungent. The hairs of some species are stinging. Some of them are emetic, others cathartic—many of them are also dangerous, even in small doses, and so fatal in some cases, that no practitioner would dare to prescribe them; as for example, Manchineel. In fact, there is a gradual and insensible transition, in this order, from mere stimulants to the most dangerous poisons. Whatever the stimulating principle of Euphorbiaceæ may be, it seems to be of a very volatile nature, because application of heat is sufficient to dissipate it. Thus the root of Jatropha Manihot or Cassava which, when raw, is one of the most violent of poisons, becomes a wholesome nutritious article of food when roasted. In the seeds, the albumen is harmless and eatable, but the embryo itself is acrid and dangerous. Independently of this volatile principle, there are two others belonging to the order, which require to be noticed; the first of these is Caoutchouc, that most innocuous of all substances, produced by the most poisonous of all families,

which may be almost said to have given a new arm to surgery, and which has become an indispensable article of life; it exists in Artocarpeæ and elsewhere, but is chiefly the produce of species of Euphorbiaceæ. The other is the preparation called Turnsol, which, although chiefly obtained from Crozophora (Croton) tinctoria, is to be produced equally abundantly from many other plants of the order." (*Lindl.*)

A. Buxeæ, Bartl.

Sarcococca, Lindl. (*B. Reg.* 12, *t.* 1012.)

1. *pruniformis*, Lindl. (*l. c.*) *Nepal Bastard-Plum.* ♄ Nepal. Fl. small, greenish-yellow, C. S.; fr. 0.
   α. latifolia. (Pachysandria ? coriacea, *Hook. exot. fl. t.* 148.)
   β. angustifolia. (? Buxus saligna, *Don. pr. fl. nep. p.* 63;—*Spreng. syst.* 3, *p.* 847.)

Buxus, L. (*Spreng. syst.* 3, *p.* 760, *No.* 3103.)

1. *chinensis*, Lk. (*Spreng. syst. p.* 847.) *China Box Tree.* ♄ China. Fl. small, yellowish-green. Has been introduced into H. C. G. Fl. ?
2. *balearica*, Lam. (*Spreng. l. c.*) *Balearic Box Tree.* ♄ Minorca. Fl. small, yellowish-green. Introduced in 1841. Has not fl.
3. *sempervirens*, L. (*Spreng. syst. l. c.*) ♄ South Europe, North Persia. In H. C. G.

In some parts of Persia where Box Trees abound, the Camel cannot be employed, because it is found impracticable to prevent that animal from browzing upon the leaves, which invariably prove poisonous to it. (*Lindl.*)

Securinega, Juss. (*Spr. syst.* 1, *No.* 1112.)

1. *borbonica*, Rich. Bourbon.

Fluggea, Willd. (*Spreng. syst.* 1, *p.* 523. *No.* 939.)

1. *Leucopyrus*, Willd. (*Spreng syst.* 1, *p.* 825.—Phyllanthus Leucopyrus, *Kön.*;—*Roxb. fl. ind.* 3, *p.* 658.) L. ♄ Coromandel. Fl. small, greenish; and fr. R. S.
2. *retusa*, Roxb. (Phyllanthus retusus, *Roxb. fl. ind.* 3, *p.* 657.) L. ♄ Bengal, (Serampore,) extending northwards to the banks of the Jumna. Fl. small, greenish; and fr. whole year.
3. *virosa*, Roxb. (Phyllanthus virosus, *Roxb. fl. ind.* 3, *p.* 659;—*Spreng. syst.* 3, *p.* 22.) L. ♄ Circars, Banks of the Jumna. Fl. small, greenish. In H. C. G. fl. H. and R. S.; fr. R. S. (*Roxb.*) The *bark* is a strong astringent, and possesses, when thrown into the water, the power of intoxicating fish, whereby they are easily taken. (*Roxb.*)

B. Phyllantheæ, Bartl.

Glochidion, Forst. (*Juss. gen. pl. p.* 442. Bradleia, Gärtn.; *Lindl. nat. Syst. p.* 116.)

1. *multiloculare*, (Bradleia multilocularis, *Roxb. fl. ind.* 3, *p.* 696;—*Spreng. syst.* 3, *p.* 19.) ♄ Bengal, (Serampore.) Fl. small, greenish cream-coloured, H. and R. S.; fr. C. S.

2. *lanceolarium*, (Bradleia lanceolaria, *Roxb. fl. ind.* 3, *p.* 697.) L. ♄ Assam. Fl. small, greenish cream-coloured, March and April; fr. R. S.—A useful timber-tree. (*Roxb.*)
3. *nitidum*, (Bradleia nitida, *Roxb. fl. ind.* 3, *p.* 699.) ♄ Circars. Fl. small, greenish cream-coloured, C. S.; fr. H. S.
4. *sinicum*, (Bradleia sinica, *Gärtn. fr.* 2, *p.* 127, *t.* 109, *f.* 1;—*Spreng. syst.* 3, *p.* 19;—*Roxb. fl. ind.* 3, *p.* 700;—*J. Grah. Cat. B. pl. p.* 184, under Bridelia.) ♄ Penang. Kandalla. Along the Ghauts. Fl. small, white. In H. C. G. Fl.?
5. *hirsutum*, (Bradleia hirsuta, *Roxb. fl. ind.* 3, *p.* 699.) ♄ Penang. Introduced into H. C. G. Fl.?

? 6. *npinatum*, (Bradleia pinnata, *Roxb. fl. ind.* 3, *p.* 700.—Phyllanthus obscurus, *Roxb. Willd.*;—*Spreng. syst.* 3, *p.* 22.) ♄ Penang. Fl. small, yellow, nearly the whole year.

Cicca, L. (*Spreng. syst.* 1, *p.* 375, *No.* 569.)

1. *disticha*, L. (*Spreng. syst.* 1, *p.* 500;—*Lam. ill. t.* 757, *f.* 1;—*J. Grah. Cat. B. pl. p.* 180.—Phyllanthus longifolius, *Jacq. Schönb.* 2, *p.* 36, *t.* 1, 194;—*Roxb. fl. ind.* 3, *p.* 672.—Averrhoa acida, *L.*;—*Rheed.* 3, *t.* 47-48.—*Rumph. auct. p.* 33, *t.* 17, *f.* 2.) নবাড়ী *Nubaree.* নড়ী *Nuree.* ♄ Native place uncertain. Commonly cultivated in gardens. Fl. small, reddish, H. S.; fr. R. and C. S. *Leaves* sudorific. *Fruit* succulent, sub-acid, cooling, wholesome, eaten raw, or made into pickles and preserves.—*Seeds* cathartic.

Emblica, Gärtn. (*Spreng. syst.* 3, *p.* 4, *No.* 2343.)

1. *officinalis*, Gärtn. (*fr.* 2, *p.* 122, *t.* 108, *f.* 2;—*Spreng. syst.* 3, *p.* 20.—Phyllanthus Emblica, *L.*;—*Roxb. fl. ind.* 3, *p.* 671;—*J. Grah. Cat. B. pl. p.* 180;—*Rheed.* 1. *t.* 38;—*Rumph. auct. p.* 1, *t.* 1.) আমলা *Amla.* L. ♄ Moluccas. Coromandel. Concans, Deccan, South Mahratta country. Bengal, extending northwards to the Banks of the Jumna. Cultivated in gardens. Fl. minute, greenish-yellow, H. and R. S.; fr. C. S. *Wood* hard and durable, particularly under water. *Bark* very astringent, used by the Natives for tanning.—*Fruit* succulent, sharp, unpalatable, unless pickled or preserved with sugar. (*Roxb.*)

Phyllanthus, L. (*Spreng. syst.* 3, *p.* 4. *No.* 2344.)

1. *maderaspatensis*, L. (*Spreng. syst.* 3, *p.* 21;—*Roxb. fl. ind.* 3, *p.* 654;—*J. Grah. Cat. B. pl. p.* 180.) ☉ Peninsula of India, Bengal, (Serampore.) Fl. small, greenish; and fr. the whole year. Taste herbaceous, somewhat astringent. Cattle eat it. (*Roxb.*)
2. *simplex*, Retz. (*Spreng. syst.* 3, *p.* 23;—*Roxb. fl. ind.* 3, *p.* 654.) ♃. Coromandel, Bengal, (Serampore.) Fl. small, greenish, R. S; fr. C. S.—Fresh *leaves*, bruised and mixed with butter-milk, used by the Natives to cure the itch in children. (*Roxb.*)
3. *fasciculatus*, Poir. (p. 304.—Phyllanthus Kirganelia, Willd.;—*Roxb. fl. ind.* 3, *p.* 668.—Kirganelia virginea, *Pers. syn.* 2, *p.* 591.—

Kirganelia, *Juss.*) ♄ Mauritius, where it is called *Bois de Demoiselle.* Fl. small, reddish, the whole year; fr. 0. or rare.

4. *reticulatus,* Poir. (*Ph. Vitis Idæa, Kön.;—Roxb. fl. ind.* 3, *p.* 665;—*J. Grah. Cat. B. pl. p.* 180;—*Rheed.* 5 *t.* 44.) হামকাটঝুলি *Hamkato-jooli.* L. ♄ Coromandel. Concans. Bengal, (Serampore.) Fl. small, greenish; and fr. the whole year. Wood white and durable, employed by the Hill people for various economical purposes. Cattle eat the leaves. Frequently employed for ornamental hedges. (*Roxb.*)
5. *obcordatus,* Roxb. (*fl. ind.* 3. *p.* 656.) ♄ Bengal, (Serampore.) Fl. small, greenish; and fr. the whole year.
6. *Niruri,* L. (*Spreng. syst.* 3, *p.* 23;—*Roxb. fl. ind.* 3, *p.* 659;—*J. Grah. Cat. B. pl. p.* 180.—Urinaria indica, *Burm. zeyl. t.* 93;—*Rheed.* 10, *t.* 15.) শাদাহাজরমনি *Sada-hajur-muni.* Peninsula of India, Bengal, (Serampore,) Fl. minute, greenish; and fr. the whole year. *Leaves* deobstruent, diuretic, healing. *Fresh root* a good remedy in jaundice. Half an ounce, rubbed up in a cup of milk, and given every morning and evening, will complete the cure in a few days, without any sensible operation of the medicine. (*Roxb.*)
7. *Urinaria,* L. (*Spreng. syst.* 3, *p.* 23;—*Lam. ill. t.* 756, *f.* 2;—*Roxb. fl. ind.* 3, *p.* 660;—*J. Grah. Cat. B. pl. p.* 180;—*Rheed.* 10, *t.* 16;—*Rumph.* 6. *t.* 17, *f.* 2.) হাজরমনি *Hajur-muni.* ⊙ Peninsula of India. Bengal, (Serampore.) Moluccas.—Fl. minute, greenish; and fr. the whole year.—*Plant* powerfully diuretic.
8. *bacciformis,* L. (*Roxb. fl. ind.* 3, *p.* 661;—*Pers. syn.* 2, *p.* 690.—Agyneia phyllanthoides, *Spreng. syst.* 3, *p.* 19.) ♂ Coromandel. Fl. small, greenish; and fr. the whole year.
9. *pendulus, Roxb.* (*fl. ind.* 3, *p.* 662.) ♂ Coromandel. Fl. small, greenish, R. S.; fr. C. S.
10. *multiflorus,* Willd. (*Spreng. syst.* 3, *p.* 22;—*Roxb. fl. ind.* 3, *p.* 664;—*J. Grah. Cat. B. pl. p.* 180;—*Rheed.* 10, *t.* 27.) পাণশিউলি *Pan-shiooli.* ♄ ◡ Coromandel. Concans. Bengal, (Serampore.) Fl. small, greenish-white; and fr. the whole year.
11. *turbinatus,* Kön. (*Roxb. fl. ind.* 3, *p.* 666;—*H. B. p.* 104;—*B. M.* 44, *t.* 1862;—*Spreng. syst.* 3, *p.* 21, excl. syn. Ker;—*J. Grah. Cat. B. pl. p.* 180.—P. Simsianus, *Wall. rept;—Rheed.* 5, *t.* 43) L. ♄ or ♄ Mountains of Orissa. Coromandel. Malabar and Worlee hills. Salsette. Fl. small, greenish.—In H. C. G.—Fl. ?
12. *patens,* Roxb. (*fl. ind.* 3, *p.* 667.) ♄ Chittagong. Fl. small, greenish; and fr. the whole year.
13. *tenellus,* Roxb. (*fl. ind.* 3, *p.* 668.) ♄ Mauritius. Fl. minute, pale pink. In H. C. G. fl. and fr. the whole year. (*Roxb.*)
14. *reclinatus,* Roxb. (*fl. ind.* 3, *p.* 669.) ♄ ◡ Sumatra. Fl. small, yellowish, R. S.; fr. C. S.
15. *strictus,* Roxb. (*fl. ind.* 3, *p.* 670.) ♄ Malay Islands. Fl. small, deep-purple; and fr. the whole year.

? 16. *tetrandrus*, Roxb. (*fl. ind.* 3, *p.* 674;—P. reticulata, *Lodd. Cab.* 2. *t.* 116, not Poiret.—P. multiflorus, *Poir.*, not Willd.) ♄. Silhet. Fl. minute, purple, April and May; fr. Sept. and Oct.

17. *juniperinus*, Wall. 5. Nepal. Fl. small, greenish; and fr. the whole year.

18. *bæobotroïdes*, Wall. 5. Khassya Hills. Fl. small, greenish, H. and R. S; fr. C. S.

Xylophylla, L. (*Juss. gen. pl. p.* 387.)

1. *angustifolia*, Willd. (Phyllanthus angustifolius, Swz.;—*Spreng. syst.* 3, *p.* 20.) ♄. Rocky places in Jamaica.—Fl. small, yellowish-red, R. S.; fr. 0.

2. *latifolia*, L. (*B. M.* 26, *t.* 1021.—Phyllanthus latifolius, *Swz.*—*Spreng. l. c.*) ♄. Jamaica. Introduced in 1841.

3. *elongata*, Lodd. (*B. Cab. t.* 1091.) ♄. Jamaica. Introduced in 1841.

Agyneia, L. (*Spreng. syst.* 3, *p.* 3. *No.* 2341.)

1. *puber*, L. (*Spreng. syst.* 3. *p.* 19.—Bradleia puber, *Roxb. fl. ind.* 3, *p.* 698.) ♄. Moluccas.—In H. C. G. Fl?

Cluytia, L. (Clutia, *Spreng. syst.* 3, *p.* 6. *No.* 2373.)

1. *semperflorens*, Roxb. (*fl. ind.* 3, *p.* 730.) ♄ Silhet, Assam. Fl. small, purple or green; and fr. the whole year.

2. *oblongifolia*, Roxb. (*fl. ind.* 3, *p.* 730.) ♄ Silhet, Assam. Fl. minute, white, April and May; fr. Aug. and Sept.—Furnishes the Natives with hard, durable *wood*, fit for various economical purposes. (*Roxb.*)

3. *collina*, Roxb. (*Corom.* 2, *t.* 169;—*fl. ind.* 3, *p.* 732;—*Spreng. syst.* 3, *p.* 49.) ♄ Circars. Fl. minute, white, H. S; fr. Dec. and Jan.—*Wood* reddish, very hard and durable. Outer part of the *capsule* reported to be exceedingly poisonous.

4. *patula*, Roxb. (*Corom.* 2, *t.* 170;—*fl. ind.* 3, *p.* 733;—*Spreng. syst.* 3, *p.* 49.) ♄ Valleys among the Circars. Fl. small, white.—In H. C. G. fl. H. S; fr. R. S.—*Wood* of the colour of dried rose-leaves, hard, and durable. (*Roxb.*)

The above four species, as well as C. diversifolia, Roxb., being all monoecous, and differing in several other respects from Cluytia, L., which is a Cape-genus, will no doubt be hereafter ranged under a separate head.

Bridelia, Willd. (*Spreng. syst.* 3, *p.* 6, *No.* 2371.)

1. *spinosa*, Willd. (*Spreng. syst.* 3, *p.* 48;—*Roxb. fl. ind.* 3, *p.* 735;—*J. Grah. Cat. B. pl. p.* 184.—Cluytia spinosa, *Roxb. Corom.* 2, *t.* 172.) L. ♄ Circars. Elephanta, the Ghauts, Salsette, Assam. Fl. small, greenish-yellow. In H. C. G. fl. July and Aug.; fr. Dec. (*Roxb.*)—*Wood* dark-coloured, hard and durable. *Bark* powerfully astringent. *Leaves* eaten by cattle, and said to free them from intestinal worms. (*Roxb.*)

2. *crenulata*, Roxb. (*fl. ind.* 3, *p.* 734.) L. ♄ Banks of the Megna. Fl. small, yellowish. In H. C. G. fl. May; fr. Oct. (*Roxb.*)

3. *scandens*, Willd. (*Spreng. syst.* 3, *p.* 48;—*Roxb. fl. ind.* 3, *p.* 736;—*J. Grah. Cat. B. pl. p.* 184.—Cluytia scandens, *Roxb. Corom.* 2, *t.* 173;—*Rheed.* 2, *t.* 16.) ♄ ◡ Circars. Hills near Nagotnah and about Parr. Common on the Banks of the Gutpurba, near Duddi. Fl. small, yellowish-green. In H. C. G. fl.; and fr. the whole year. (*Roxb.*)
4. *lanceæfolia*, Roxb. (*fl. ind.* 3, *p.* 737) L. ♄ Bengal. Fl. small, yellowish-green, R. S.; fr. C. S.
5. *attenuata*, Wall. MSS. ♄ North-east of Bengal. Fl. small, greenish, R. S.

? 6. *Berryana*, Wall. MSS. ♄ Courtallum? Fl. small, greenish, R. S.

7. *amoena*, Wall. 5 Pegu.

C. Ricineæ, Bartl.

Crozophora, Neck. (*Spreng. syst.* 3, *p.* 760, *No.* 3110.)

1. *plicata*, Ad. Juss. (*Spreng. syst.* 3, *p.* 850.—Croton plicatum, *Vahl.*;—*Roxb. fl. ind.* 3, *p.* 681;—*J. Grah. Cat. B. pl. p.* 182.—C. tinctorium, *Burm. ind. t.* 62, *f.* 1; not. L.) খুদি ওকড়া *Khoodi-okra.* ⊙ Peninsula of India, Bengal, (Serampore,) extending northwards to the banks of the Jumna. Fl. small, greenish-white, C. S.; fr. H. S.—Cloth moistened with the juice of the *green capsules*, soon becomes blue on exposure to the open air. They, no doubt, contain colouring matter that might be usefully employed, probably similar to that of Croton tinctorium, L. (*Roxb.*)

Croton, L. (*Spreng. syst.* 3, *p.* 762, *No.* 3135.—κροτων, ωνος, ὁ. Croton, onis, f. Plin.)

1. *polyandra*, Roxb. (*H. B. p.* 69;—*fl. ind.* 3, *p.* 682; not Spreng.—Neue Entdeck. 1820-22, 2, p. 120.—C. Roxburghii, *Wall. Rept.*) হাকুই *Hakooi.* দন্তী *Duntee.* ♄ Circars. Bengal, (Serampore,) extending northwards to the banks of the Jumna. Fl. small, greenish-yellow, R. and C. S.; fr. C. S. *Seeds* esteemed by the Natives as a good purgative. They administer one, two, or three seeds, bruised up with water, according to the effect they wish to be produced. Some say, that these are the real Jamalgota of the Hindoos, while others, and with more reason, think that Croton Tiglium is the plant producing the real drug. (*Roxb.*)
2. *drupacea*, Roxb. (*fl. ind.* 3, *p.* 683.) ♄ ◡ Dacca. Fl. small, greenish yellow, March and April; fr. Aug. and Sept.
3. *oblongifolia*, Roxb. (*fl. ind.* 4, *p.* 685, not Delile, nor Sieber.) বড়গাছ *Buro-gachh.* 5 Fl. small, greenish yellow, March; fr. R. S. Bengal. (Serampore.)
4. *Joufra*, Roxb. (*fl. ind.* 3, *p.* 685.) ♄ Silhet. Fl. small, greenish yellow, Feb. and March; fr. R. S.
5. *Tiglium*, L. (*Spreng. syst.* 3, *p.* 870;—*Roxb. fl. ind.* 3, *p.* 682;—*J. Grah. Cat. B. pl. p.* 182.—C. Jamalgota, *Buch*;—*Rheed.* 2, *t.* 33;—*Rumph.* 4. *t.* 42.) জয়পাল *Jypal.* Hind. *Jamalgota.* 5 Moluccas,

Tavoy. Coromandel. Concans. Assam. Fl. small, greenish yellow; H. S.; fr. C. S. Produces the famous *Croton-oil*. The leaves have a very nauseous taste, and the whole tree smells offensively. (*Roxb.*)

6. *bicolor*, Roxb. (*fl. ind.* 3, *p.* 680.) ♄ Sumatra. In H. C. G. fl. March and April. (*Roxb.*)
7. *urophylla*, Wall. MSS. Introduced in 1841. N. E. of Bengal.
8. *micradenia*, Wall. N. E. of Bengal.
? 9. *iliciodora*, Wall. ♄ from Madagascar.
10. *lævigata*, Wall. (not Vahl.) Silhet.

HÆMATOSPERMUM, Wall. (*Lindl. Nat. Syst. p.* 116.)

1. *neriifolium*, Wall. (Adelia neriifolia, *Roxb. fl. ind.* 3, *p.* 849;—*Spreng. syst.* 3, *p.* 148;—*J. Grah. Cat. B. pl. p.* 185.) L. ♄ Coromandel. Common in the beds of Concan and Deccan rivers. Assam. Fl. small, H. S.; fr. R. S.

ROTTLERA, Roxb. (*Spreng. syst.* 3, *p.* 762. *No.* 3136.)

1. *tinctoria*, Roxb. (*Corom.* 2, *t.* 168; *fl. ind.* 3, *p.* 827;—*Spreng. syst.* 3, *p.* 878;—*J. Grah. Cat. B. pl. p.* 184;—*Rheed.* 5, *t.* 21.) পুন্নাগ L. ♄ Coromandel. Parell Hill, Bombay. Hills throughout the Concans. Common in the jungles between Mundighur and Sanklee, Assam.—Has not fl. here, nor had it done so in H. C. G. in 1814, though introduced in 1797.—The red, mealy powder which covers the capsules is used by the Natives to dye scarlet. (*Roxb.*)
2. *tetracocca*, Roxb. (*fl. ind.* 3. *p.* 826.) L. ♄ Silhet, Assam.—In H. C. G. fl. H. S; fr. July and Aug. (*Roxb.*)
3. *peltata*, Roxb. (*fl. ind.* 3, *p.* 828.) ♄ Silhet, Assam. Fl. small, greenish yellow, April and May; fr. Aug.
4. *ferruginea*, Roxb. (*fl. ind.* 3, *p.* 828.) ♄ Malay Islands. Fl. small, greenish yellow, H. S.; fr. 0.
5. *alba*, Roxb. (*fl. ind.* 3, *p.* 829.) ♄ Penang.—In H. C. G. fl. Sept. and Oct. (*Roxb.*)
6. *laccifera*, (R. dicocca, *Roxb. fl. ind.* 3, *p.* 829.—Aleurites laccifera, *Willd.*;—*Spreng. syst.* 3, *p.* 147.—Croton lacciferum, *L.*;—not C. aromaticum, L.; Spreng. o. c. p. 869.) আকশ *Aukkush*. ♄ ◡ Coromandel. Bengal, (Serampore.) Fl. small, greenish yellow, H. and R. S; fr. R. S.
7. *barbata*, Wall. ♄ Penang. Introduced in 1840.—Has not fl.

CODIÆUM, Rumph. (*Spreng. syst.* 3, *p.* 762. *No.* 3134.)

1. *chrysosticton*, Rumph. (*Spreng. syst.* 3, *p.* 866.—Croton variegatum, *L.*;—*Roxb. fl. ind.* 3, *p.* 678;—*J. Grah. Cat. B. pl. p.* 182.) ♄ Moluccas. Fl. small, greenish-yellow, H. and R. S.; fr. R. S. but rare. —*Root* and *bark* acrid, exciting, if chewed, a burning sensation in the mouth. *Leaves* sweet and cooling. (*Rumph.*)

   α. *medium*; yellow-green-leaved. (*Rheed.* 6, *t.* 61;—*Rumph.* 4, *t.* 25.)

   β. *crispum*; crisp-leaved. (*Rumph.* 4, *t.* 26, *f.* 2.)

γ. *latifolium*; painted-leaved. (Codiæum pictum, *Hook. B. M.* 58, *t.* 3051.)

δ. *viride*; long and uniformly green-leaved.

GELONIUM, Roxb. (*Spreng. syst.* 2, *p.* 445. *No.* 1793.)

1. *bifarium*, Roxb. (*fl. ind.* 3, *p.* 830;—*Spreng. syst.* 2, *p.* 465.) ♄ Native place uncertain. Fl. small, yellow; Feb. and March; fr. R. S.
2. *lanceolatum*, Roxb. (*fl. ind.* 3, *p.* 831;—*Spreng. syst.* 2, *p.* 465.) ♄ Bengal. (Serampore.) Fl. small, yellow, fragrant, H. S.; fr. C. S.
3. *fasciculatum*, Roxb. (*fl. ind.* 3, *p.* 832;—*B. M.* 60, *t.* 3231.—Suragada glabra, *Roxb. MSS.*) বননারাঙ্গা *Bunnaranga.* ♄ Circars. Bengal. (Serampore.) Fl. small, yellow, fragrant, H. S.; fr. R. S.

RICINUS, L. (*Spreng. syst.* 3, *p.* 762, *No.* 3138.)

1. *communis*, L. (*Spreng. syst.* 3, *p.* 878;—*Roxb. fl. ind.* 3, *p.* 689;—*J. Grah. Cat. B. pl. p.* 183;—*B. M.* 48, *t.* 2209.—Ricinus speciosus, *Burm. ind. t.* 63, *f.* 2;—*Rheed.* 2, *t.* 32;—*Rumph.* 4, *t.* 41.) ভেরণ্ডা *Bherunda. Palma Christi. Castor-oil plant.* ♄ Greece. N. Africa. India. Much cultivated. *Seeds* used by dyers to mix with colours and render them permanent. (*J. Grah.*) The oil often used in lamps, especially by the Natives. *Leaves* a favourite food of some silk worms.
2. *dicoccus*, Roxb. (*fl. ind.* 3, *p.* 690;—*Rumph.* 4. *t.* 64.) ♄ Amboyna. Fl. small, greenish-yellow, H. S.; fr. R. S.
3. *Mappa*, L. (*Roxb. fl. ind.* 3, *p.* 690.—Mappa moluccana, *Spreng. syst.* 3, *p.* 878.—Acalypha Mappa, *Willd*;—*Rumph.* 3, *t.* 108.) ♄ Moluccas. Fl. small, greenish, R. and C. S.; fr. 0.

JANIPHA, Kth. (*Spreng. syst.* 3, *p.* 8, *No.* 2404.)

1. *Yuquilla*, Kth. (var. J. Loflingii, Kth.;—*Spreng. syst.* 3, *p.* 77.) ♄ S. America. Introduced in 1841.
2. *Manihot*, Kth. (*Spreng. syst.* 3, *p.* 77;—*B. M.* 58, *t.* 3071.—Jatropha Manihot, *L.*;—*Roxb. H. B. p.* 69;—*J. Grah. Cat. B. pl. p.* 183.) *Tapioca. Manioc*, or *Cassava-Plant.* Fl. smallish, reddish. Has never fl. here, nor had it done so in H. C. G. in 1814, though introduced in 1794.—S. America.—The *roots* yield a flour (Cassava) of immense importance in S. America. This is obtained by crushing them, after the bark has been removed, and then straining off the water; after which the mass is gradually dried in pans over a fire. *Tapioca* is a preparation from the same root. (*Lindl.*)

JATROPHA, L. (*Spreng. syst.* 3, *p.* 8, *No.* 2403.)

1. *panduræfolia*, Andr. (*Spreng. syst.* 3, *p.* 76;—*B. M.* 17, *t.* 604.) ♄ Cuba. Fl. largish, scarlet; and fr. the whole year.
2. *Curcas*, L. (*Spreng. syst.* 3, *p.* 77;—*Roxb. fl. ind.* 3, *p.* 686;—*J. Grah. Cat. B. pl. p.* 183.—Castiglionia lobata, *Ruiz. and Pav.*) বাঘভেরণ্ডা *Bagh-bharanda.* ♄ Cuba, S. America. Domesticated in India. Fl. small, green; and fr. the whole year. *Seeds* purgative and occasionally emetic. An expressed *oil* is obtained from them, which is reckoned a valuable external application in itch and herpes; it is also used, a

little diluted, in chronic rheumatism. The varnish used by the Chinese for covering boxes is made by boiling this oil with oxide of iron. The *leaves* are considered rubefacient and discutient. The *milky-juice* is supposed to be detergent and healing, and dyes linen black. (*Ainslie.*)

3. *multifida*, L. (*Spreng. syst.* 3, *p.* 77;—*Roxb. H. B. p.* 69;—*J. Grah. Cat. B. pl. p.* 183;—*Salisb. lond. t.* 91.) *Coral-plant.* ♄ S. America. Fl. small, red; and fr. the whole year.
4. *glandulifera*, Roxb. (*fl. ind.* 3, *p.* 688.—J. glauca, *Vahl.?*) ♄ India; locality uncertain. Fl. small, greenish-yellow; and fr. the whole year. Exudes a pale thin juice, which the Hindoos employ for removing films from the eyes. (*Roxb.*)
5. *carnosa*, Wall. ♄ Bengal. H. C. G.

Macaranga, Pet. Th.?

1. *Roxburghii*, Wall. (*Osyris peltata, Roxb.* 3, *p.* 755.) ♄ Circars. All the young parts of this plant are covered more or less with soft resinous adhesive matter, smelling strongly of turpentine.

Elæococca, Commers. (Elæococcus, *Spreng. syst.* 3, *p.* 763, *No.* 3140.)

1. *Vernicia*, Ad. Juss. (*Spreng. syst.* 3, *p.* 884.—Vernicia montana, *Lour.*—Dryandra Vernicia, *Corr.*) ♄ China, Cochin-China. Assam. Fl. largish, white, R. S. This and the next species are the Varnish-trees of the Chinese.
2. *verrucosa*, Ad. Juss. (*Spreng. syst.* 3, *p.* 884.—Dryandra cordata. *Thunb. jap. p.* 267, *t.* 27.—D. oleifera, *Lam.*;—*Banks icon. Kämpf. t.* 23.) ♄ Japan. In H. C. G.? Fl.?

Aleurites. Forst. (*Spreng. syst.* 3, *p.* 13, *No.* 2473.)

1. *triloba*, Forst. (*Spreng. syst.* 3, *p.* 147;—*Roxb. fl. ind.* 3, *p.* 629;—*J. Grah. Cat. B. pl. p.* 181.—Camirium cordifolium, *Gärtn. fr. p.* 195, *t.* 125. *f.* 2.—Juglans Camirium, *Lour.*—Camirium, *Rumph.* 2, *t.* 58.) অখরোট *Ukhrot.* L. ♄. Moluccas, Malay Islands. South Mahratta country about Belgaum. Bengal, (Serampore,) Assam. *Fl.* small, greenish-white, H. S.; fr. Aug. *Kernels* eatable, tasting like fresh walnuts. They yield by expression a large proportion of very pure, palatable oil. (*Roxb.*)

Anda, Pis. (*Spreng. syst.* 3, *p.* 6, *No.* 2380.)

1. *Gomesii*, Juss. (*Spreng. syst.* 3. *p.* 54.) L. ♄. Brazil. Fl. small, whitish, somewhat sweet-scented, March and April; fr. nearly a year after. The *seeds* either eaten raw, or prepared as an electuary, act as a purgative. They yield an oil, which is said to be drying and excellent for painting. (*A. St. Hilaire.*)

D. Acalypheæ, Bartl.

Acalypha, L. (*Spreng. syst.* 3. *p.* 762, *No.* 3139.)

1. *ciliata*, Forsk. (*Spreng. syst.* 3, *p.* 879;—*Roxb. fl. ind.* 3, *p.* 676;—*Vahl. symb.* 1. *p.* 77, *t.* 20.) ☉ Guinea, Arabia, Bengal, (Serampore,) extending northwards to the banks of the Jumna. Fl. small, greenish, R. S.; fr. C. S.

2. *indica*, L. (*Spreng. syst.* 3, *p.* 880;—*Roxb. fl. ind.* 3. *p.* 675;—*J. Grah. Cat. B. pl. p.* 186;—*Rheed.* 10, *t.* 81, 33.) মুকত জুড়ি *Mooktojoori*. ⊙ Peninsulas of India. Bengal, (Serampore,) &c. Fl. small, greenish, R. S.; fr. C. S. *Root*, bruised in hot water, cathartic. A decoction of the *leaves* laxative. (Rheed.) Cats are as much affected by the roots as by those of Valerian. (*Nimmo.*)
3. *chinensis*, Roxb. (*fl. ind.* 3. *p.* 677.) ⊙ China. In H. C. G. fl.; and fr. the whole year. (*Roxb.*)
4. *conferta*, Roxb. (*fl. ind.* 3, *p.* 677.) ⊙ China. In H. C. G. fl.; and fr. the whole year. (*Roxb.*)
5. *cylindrica*, Roxb. (*fl. ind.* 3, *p.* 678.) ⊙ Mauritius. In H. C. G. fl.; and fr. the whole year. (*Roxb.*)

Mercurialis, L. (*Spreng. syst.* 2, *p.* 263, *No.* 1529.)

1. *annua*, L. (*Spreng. syst.* 2, *p.* 272;—*Roxb. H. B. p.* 73;—*E. B.* 8, *t.* 559.) *Annual Mercury*. ⊙ Europe. Fl. small, greenish-yellow, Feb. *Plant* diuretic, rather dangerous. (*Smith.*)

Plukenetia, L. (*Spreng. syst.* 3, *p.* 10, *No.* 2430.)

1. *corniculata*, Sm. (*Spreng. syst.* 3, *p.* 87;—*Rumph.* 1, *t.* 79. *f.* 2.) ♄ ◡ Amboyna. Assam. Fl. small, greenish, R. S. The boiled *leaves* are said to be an excellent potherb, for which purpose the plant is cultivated in Amboyna. (*Rumph.*)

Tragia, Plum. (*Spreng. syst.* 3, *p.* 759. *No.* 3091.)

1. *cannabina*, L. (*Spreng. syst.* 3, *p.* 834;—*Roxb. fl. ind.* 3, *p.* 575.) ♄ ◡ Coromandel. Bengal, (Serampore,) extending northwards to the banks of the Jumna. Fl. small, yellowish, R. S; fr. C. S. The *hair* of this plant stings like that of the common nettle.
2. *Mercurialis*, L. (*Spreng. syst.* 3, *p.* 833;—*Roxb. fl. ind.* 3, *p.* 576;—*J. Grah. Cat. B. pl. p.* 186;—*Rheed.* 10, *t.* 82.) ⊙ Peninsula of India. Fl. small, greenish, R. and C. S.; fr. C. S.
4. *involucrata*, L. (*Spreng. syst.* 3, *p.* 833;—*Roxb. fl. ind.* 3, *p.* 576;—*J. Grah. Cat. B. pl. p.* 186;—*Jacq. icon. rar.* 2, *t.* 190;—*Rheed.* 2, *t.* 39;—*Burm. Zeyl. t.* 92.) বিছটী *Bichhutee*. ♄ ◡ Ceylon. Peninsula of India, Bengal, (Serampore.) Fl. small, greenish; and fr. the whole year. The *hair* of this plant stings like that of the common nettle. The *root* is reckoned, by the Hindoo doctors, among those medicines which they conceive to possess altering and correcting virtues in cases of cachexia. (*Ainslie.*)
5. *colorata*, Poir. (*excl. syn. Rheed.* 12, t. 30.) Mauritius.

? Stylodiscus, Bennett. (*Horsf. pl. Jav. rar.* 2, *p.* 133.)

1. *trifoliatus*, Bennett. (*Horsf. o. c. t.* 29.—Psychodendron trifoliatum, *Wall. rept.*—Andrachne trifoliata, *Roxb. fl. ind.* 3, *p.* 728.) L. ♄ Java. Ava. Peninsula of India, Hurdwar. Chittagong, Nepal. Fl. small greenish, Feb.; fr. May and June. *Wood* and *bark* red. Employed for masts and spars of small vessels.

E. HIPPOMANEÆ, Bartl.

CNEMIDOSTACHYS, Mart. (*Spreng. syst.* 3, *p.* 759, *No.* 3092.)

1. *Chamælea,* Spreng. (*syst.* 3, *p.* 835.—Tragia Chamælea, *L.*;—*Roxb. fl. ind.* 3, *p.* 577;—*J. Grah. Cat. B. pl. p.* 186;—*Rheed.* 2, *t.* 34;—*Burm. zeyl. t.* 25.) ♃. Ceylon. Coromandel. South Concan. Fl. small, greenish; and fr. C. S.

SAPIUM, Jacq. (*Spreng. syst.* 3, *p.* 759, *No.* 3085.)

1. *indicum,* Willd. (*Spreng. syst.* 3, *p.* 805;—*Roxb. fl. ind.* 3, *p.* 692;—*J. Grah. Cat. B. pl. p.* 181;—*Rheed.* 4, *t.* 51.) হড়ুয়া *Hoorooya.* 5 Coromandel. South Concan. Soonderbuns. Assam. Fl. minute, greenish; and fr. nearly the whole year.
2. *baccatum,* Roxb. (*fl. ind.* 3, *p.* 694.) L. ♄ Assam. Fl. minute, greenish, March and April; fr. Aug. and Sept.

STILLINGIA, L. (*Spreng. syst.* 3, *p.* 759. *No.* 3084.)

1. *sebifera,* Michx. (*Spreng. syst.* 3, *p.* 805.—Sapium sebiferum, *Roxb. fl. ind.* 3, *p.* 693;—*J. Grah. Cat. B. pl. p.* 181.—Croton sebiferum, *L.*) চেলাটপিপ্পল *Chelat-pipul.* মোমচীনা *Mom-cheena.* ♄ China. Domesticated about Serampore. Fl. small, yellowish, March and April; fr. C. S. The sebaceous produce of the *seeds* forms the vegetable tallow of China, which, however, is for the lamp, far inferior to Cocoa-nut oil. (*Roxb.*)

HURA, L. (*Spreng. syst.* 3, *p.* 763. No. 3141.)

1. *crepitans,* L. (*Spreng. syst.* 3, *p.* 884;—*Roxb. H. B. p.* 70;—*J. Grah. Cat. B. pl. p.* 184;—*Lam. ill. t.* 793.) *Sandbox Tree.* L. 5 Tropical America. Fl. small, whitish, R. S.; fr. C. S. The *sap of the leaves* and bark is highly poisonous. One or two *seeds* are said to have been administered to negro slaves as purgatives, with fatal consequences. (*Adr. Jussieu.*)

EXCOECARIA, L. (*Spreng. syst.* 3, *p.* 4, No. 2345.)

1. *Agallocha,* L. (*Spreng. syst.* 3, *p.* 25;—*Roxb. fl. ind.* 3, *p.* 756;—J. *Grah. Cat. B. pl. p.* 185;—*Rumph.* 2, *t.* 79, 80.) গেঁৱা *Gengwa.* 5 Moluccas. Soonderbuns. Salt Marshes at Bombay. Fl. minute, greenish, H. S.; fr. R. S. The *juice* of this tree, and even its smoke when burnt, affects the eyes with intolerable pain, as has been experienced occasionally by sailors sent ashore to cut fuel, who, according to Rumphius (and Roxburgh,) having accidentally rubbed their eyes with the juice, became blinded, and ran about like distracted men, and some of them finally lost their sight. (*Lindl.*)

F. EUPHORBIEÆ, Bartl.

DALECHAMPIA, L. (*Spreng. syst.* 3, *p.* 10, *No.* 2429.)

1. *madagascariensis,* Bojer. ♄ ◡ Madagascar. Fl. small, deep-yellow, with large white bractes, Sept.; fr. C. S.

EUPHORBIA, L. (*Spreng. syst.* 3, *p.* 758. *No.* 3076.) *Spurge.*

1. *Ligularia,* Roxb. (*fl. ind.* 2, *p.* 465;—*J. Grah. Cat. B. pl. p.* 179. *annot*;—*Rumph.* 4, *t.* 40.) মনসাসিজ *Munsa-sij.* 5 Moluccas. Peninsula

of India, Bengal, (Serampore.) Fl. middle-sized, greenish-yellow, R. S. *Root*, mixed up with black pepper, used by the Natives against snake-bites. (*Roxb.*)

2. *Nivulia*, Buch. (*Spreng. syst.* 3, *p.* 787.—E. neriifolia, L.;—*Roxb. fl. ind.* 2, *p.* 467;—*J. Grah. Cat. B. pl. p.* 178;—*DC. pl. gras. t.* 46;—*Rheed.* 2, *t.* 43.) সিজ *Sij.* ♄ Coromandel. Rocky parts of the Deccan. The Concans. Bengal, (Serampore.) Scinde. Fl. middle-sized, greenish-yellow, March and April. *Juice* of the leaves taken by the Natives as a purge and deobstruent, and, mixed with *Neem* oil, employed externally in cases of contracted limb brought on by ill-treated rheumatic affections. (*Ainslie.*)
3. *bupleurifolia*, Jacq. (*Spr. syst.* 3, *p.* 787;—*B. M.* 63, *p.* 3476.) ♄ C. G. H.
4. *trigona*, Roxb. (*fl. ind.* 2, *p.* 468;—not Haw.) ♄ Moluccas. Fl. middle-sized, greenish-yellow, Feb. March and April; fr. 0.
5. *Bojeri*, Hook. (*B. M.* 63, *t.* 3527.) ♄ Madagascar. Fl. largish, scarlet, —the whole year.
6. *splendens*, Bojer. (*B. M.* 56, *t.* 2902.) ♄ Madagascar. Fl. largish, red, H. S.
7. *hoyæfolia*, Wall. ♄ Penang. In H. C. G.
8. *antiquorum*, L. (*Spreng. syst.* 3, *p.* 786;—excl. syn. Vahl.—*Roxb. fl. ind.* 2, *p.* 468;—*J. Grah. Cat. B. pl. p.* 179;—*Rheed* 2, *t.* 42.) নাড়াসিজ *Nara-sij.* তেকাটাসিজ *Tekata-sij.* ♄ Coromandel. South Mahratta Country. Bengal, (Serampore.) Assam. Fl. middle-sized, greenish yellow, C. S.; fr. H. S. The inspissated milky *juice* of this species is said, in common with that of other succulent Euphorbias, to produce the drug Euphorbium. In India this is mixed with the oil expressed from the seeds of Sesamum indicum, and used externally in rheumatic affections, and internally in cases of obstinate constipation. (*Ainslie.*)
9. *arborescens*, Roxb. (*fl. ind.* 2, *p.* 468.) ♄ Bengal? Has not fl. here, nor had it done so in H. C. G. in 1814, though introduced in 1800.
10. *lactea*, Roxb. (*fl. ind.* 2, *p.* 468.) ♄ Moluccas. Introduced into H. C. G. in 1802, but had not fl. up to 1814.
11. *lophogona*, Lam. (*Spreng. syst.* 3, *p.* 788;—*B. Cab.* 15, *p.* 1477.) ♄ Madagascar. Has been introduced into H. C. G. Fl.?
12. *Tiraculli*, L. (*Spreng. syst.* 3, *p.* 789;—*Roxb. fl. ind.* 2, *p.* 470;—*J. Grah. Cat. B. pl. p.* 179;—*Rheed.* 2, *t.* 44;—*Rumph. auct. t.* 29.) লঙ্কাসিজ *Lunka-sij.* ♄ Coromandel. Guzerat. Deccan. Concan. Bengal, (Serampore.) Assam. Moluccas. Fl. small, yellowish, R. S. The fresh, acrid juice of this plant employed by the Natives as a blister. (*Ainslie.*)
13. *pyrifolia*, Lam. (*Spreng. syst.* 3, *p.* 789.) ♄ Mauritius. Has been introduced into H. C. G. Fl.?

14. *mellifera*, Ait. (*Spreng. syst.* 3, *p.* 789;—*B. M.* 32, *t.* 1305.) ♄ Madeira. Introduced in 1841.
15. *maculata*, L. (*Spreng. syst.* 3, *p.* 791;—*Jacq. vind.* 2, *t.* 186.) ♃. N. America. Fl. small, greenish, the whole year.
16. *picta*, Jacq. (*coll.* 3, *p.* 178;—*ic. rar.* 3. *p.* 5, *t.* 477.) ♃. W. Indies, 1820.
17. *uniflora*, Roxb. (*fl. ind.* 2, *p.* 473.) ⊙ Coromandel? In H. C. G. fl.; and fr. the whole year. (*Roxb.*)
18. *parviflora*, Roxb. (*fl. ind.* 2, *p.* 472;—Linn. ?—*J. Grah. Cat. B. pl. p.* 179;—*Burm. Zeyl. t.* 105. *f.* 2.) ⊙ Ceylon, Peninsula of India, Bengal, (Serampore.) Fl. minute greenish; and fr. the whole year.
19. *linearis*, Retz. (*Spreng. syst.* 3, *p.* 792.) 5 St. Cruze. Introduced in 1841.
20. *Peplis*, L. (*Spreng. syst.* 3, *p.* 792;—*E. B.* 28, *t.* 2002.) *Purple Spurge.* ⊙ England, S. Europe. Fl. small, yellow or red, C. S.
21. *punicea*, Swz. (*Spr. syst.* 3, *p.* 790,—*Jacq. coll.* 3, *p.* 379;—*ic. rar.* 3, 484;—*B. Reg.* 3, 190;—*B. M.* 45. 1961;—*B. Cab.* 20, 190.) ♄ Jamaica.—Fl. Feb.
22. *Chamæsyce*, L. (*Spreng. syst.* 3, *p.* 792;—*Roxb. fl. ind.* 3, *p.* 473.) ছোটকেরঈ *Choto-keruee.* ⊙ Coromandel, Bengal, (Serampore.) S. Europe. Fl. minute, greenish-white; and fr. the whole year.
23. *sessiliflora*, Roxb. (*fl. ind.* 2, *p.* 471,) ♃. Pegu. In H. C. G. fl. Feb. and March. (*Roxb.*)
24. *acaulis*, Roxb. (*fl. ind.* 2, *p.* 472;—*J. Grah. Cat. B. pl. p.* 179.) ♃. Bengal, (Poorneah.) Hills in the Concan, Mahableshwur. In H. C. G. fl. March. (*Roxb.*)
25. *peltata*, Roxb. (*fl. ind.* 2, *p.* 474.) ⊙ Circars. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)
26. *prunifolia*, Jacq. (*Spreng. syst.* 3, *p.* 793, under E. geniculata, Ort.;—*Roxb. H. B. p.* 36.) ⊙ Peru. Fl. minute, greenish; and fr. the whole year.
27. *hirta*, L. (*Spreng. syst.* 3, *p.* 793;—*Roxb. fl. ind.* 2, *p.* 472;—*J. Grah. Cat. B. pl. p.* 179;—*Jacq. collect. suppl. p.* 160, *t.* 11, *f.* 1;—*Burm. zeyl. t.* 104;—*Rumph.* 6, *t.* 23, *f.* 2.) বড়কেরঈ *Buro-keruee.* ⊙ Moluccas. Ceylon. Peninsula of India. Bengal, (Serampore.) Fl. minute, greenish; and fr. the whole year.
28. *thymifolia*, L. (*Spreng. syst.* 3, *p.* 795;—*Roxb. fl. ind.* 2, *p.* 473.—*Burm. zeyl. t.* 105, *f.* 3.) শ্বেতকেরঈ *Shwet-keruee.* ⊙ Bourbon, Mauritius. Ceylon. Peninsula of India. Bengal, (Serampore.) Fl. minute, greenish; and fr. the whole year.
29. *prolifera, Buch.* (*Spr.* 3, *syst.* 795.) Nepal.
30. *exigua*, L. (*Spreng. syst.* 3, *p.* 796;—*E. B.* 19, *t.* 1336.) *Dwarf Spurge.* ⊙ England, Europe. Fl. minute, reddish-green, C. S.

31. *dracunculoïdes*, Lam. (*Spreng. syst.* 3, *p.* 796;—*Roxb. fl. ind.* 2, *p.* 474.) ছাগলপটপটী *Chhagul-putputee.* ⊙ Mauritius. Peninsula of India. Bengal, (Serampore.) Fl. minute, greenish, C. S.; fr. H. S.

Poinsettia, Grah. (*B. M.* 63, *t.* 3493.)

1. *pulcherrima*, Grah. (*l. c.*) ♄ Mexico. Fl. small, green, but the floral leaves (bractes) very large and of a vermillion colour. In H. C. G. fl. C. S.

Pedilanthus, Neck. (*Spreng. syst.* 3, *p.* 758. *No.* 3077.)

1. *tithymaloïdes*, Poit. (*Spreng. syst.* 3, *p.* 802;—*B. Reg.* 10, *t.* 837.—Euphorbia tithymaloïdes, *L.*;—*Roxb. H. B. p.* 36;—*J. Grah. Cat. B. pl. p.* 179.) ♄ S. America. Fl. largish, bright scarlet, H. S.; fr. 0. Was introduced into the country before 1794, and is now domesticated every where. Chiefly used for hedges, as neither goats nor cows will touch the leaves.—Used in the W. Indies medicinally under the name of Ipecacuanha, in all cases where that drug is required.
2. *carinatus*, Spreng. (*o. c. p.* 802;—*B. M.* 51, *t.* 2514.) ♄ Trinidad.

Govania, Wall. ♄ Ava. Fl. H. S.

1. *nivea*, Wall.

Xeroglottis, Wall.

1. *fragrans*, Wall.—North East Bengal.

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* *Xylophylla speciosa*, Jacq. ♄ Jamaica.—*X. linearis*, Pers. ♄ Jamaica.—*Croton Cascarilla*, L. ♄ S. America.—*C. Eleuteria*, L. ♄ Jamaica.—*C. xalapensis*, Kth. ♄ Mexico.—*C. gossypifolia*, Vahl. ♄ Trinidad.—*C. nivea*, Jacq. ♄ Jamaica.—*Adelia Bernardia*, L. ♄ Jamaica.—*A. Ricinella*, L. ♄ Jamaica.—*A. Acidoton*, L. ♄ Jamaica.—*Acidoton urens*, Swz. ♄ Jamaica.—*Ricinus globosus*, Willd. ♄ Jamaica.—*Janipha foetida*, Kth. ♄ Mexico.—*Jatropha integerrima*, Jacq. ♄ Cuba. B. M. 36, t. 1464. Still more beautiful than J. panduræfolia, Andr.—*J. coccinea*, Lk. ♄ Cuba.—*J. gossypifolia*, L.; B. Reg. 9, t. 746. ♄ W. Indies.—*J. fragrans*, Kth. ♄ Cuba.—*J. urens*, L. ♄ Brazil.—*Siphonia Cahuchu*, Rich. ♄ Guiana. The famous Caoutchouc Plant of S. America.—*Plukenetia volubilis*, L. ♄ ◡ W. Indies.—*P. verrucosa*, Sm. ♄ ◡ Surinam.—*Omalanthus populifolius*, Grah.; B. M. 54, t. 2780. ♄ N. Holland. Introduced at Bombay.—*Hippomane Mancinella*, L. ♄ W. Indies.—*Omphalea triandra*, L. ♄ Jamaica.—*Dalechampia scandens*, L. ♄ ◡ W. Indies—*D. brasiliensis*, Lam. ♄ ◡ Brazil.—*Euphorbia punicea*, Swz.; B. M. 45, t. 1961. ♄ Jamaica.—*E. cyathophora*, Jacq.; B. Reg. 9, t. 765. ♃. S. America.—*E. magnimamma*, Haw. ♄ Mexico.—*E. lanifera*, Haw. ♄ Mexico.—*E. gemmispina*, Haw. ♄ Mexico.—*E. biglandulosa*, Haw. ♄ Bourbon.—*E. angustifolia*, Lock. ♄ Trinidad.—*Pedilanthus carinatus*, Spreng.; B. M. 51, t. 2514. ♄ Trinidad.—*P. canaliculatus*, Swz. ♄ S. America.—*P. padifolius*, Poit. ♄ S America.—*P. cordellatus*, Haw. ♄ S. America.

ORDER LXXXIV.—EMPETRACEÆ, Lind. Nat. Syst. p. 117.

THE CROWBERRY TRIBE.

Small shrubs, of 3 genera, and 4 species: 2 from S. Europe; 1 from N. America; and from the Straits of Magellan.—Properties unknown.

* *Corema album*, D. Don. ♄ Portugal.

ORDER LXXXV.—FOUQUIERACEÆ, DC.—Lindl. Nat. Syst. p. 118.

Trees or shrubs, of 2 Mexican genera, each with 1 species.—Properties unknown.

* *Fouquiera formosa*, H. B. and Kth. ♄ Mexico.

ORDER LXXXVI.—CELASTRACEÆ, Lindl. Nat. Syst. p. 119.

Trees or shrubs, sometimes climbing, referred by Lindl. (adding Lophopetalum) to 26 genera. Of species, DC. pr. and Spreng. syst. enumerate 22 from S. America, Mexico and the W. Indies; 9 from N. America; 5 from Japan; 5 from Madagascar and Mauritius; 3 from Europe; 2 from N. Africa; 2 from the Canaries; 2 from Arabia; 2 from New Holland and the South Sea Islands; 1 from China; 1 from Caucasus; and 1 from Senegal. To these Wall. Cat. adds 1 for China, and 1 for Mauritius. S. Africa exhibits 60 forms, (*Harvey*,) and the E. Indies, according to our materials, 80. Of these, 28 belong to *Euonymus*; 3 to *Lophopetalum*; 33 to *Celastrus*; 3-4 to *Elæodendron*; 2 to *Pleurostylia*; — to *Actegeton*; 4 to *Kurrimia*; 4 to *Microtropis*; and 1 to *Tralliana*. Twenty-two inhabit the Himalayas; 12 the Khassya and Morung Mountains; 4 the Neelgherries; and the rest Ceylon, Malabar, Mysore, Travancore, Singapore, Penang, Prome, Tavoy, &c. Properties unimportant.

EUONYMUS, L. (*DC. pr.* 2, *p.* 3;—*W. and A. pr.* 1, *p.* 160.) *Spindle-Tree.*

1. *Hamiltonianus*, Wall. (*Cat.*—E. atropurpurens, *Roxb. fl. ind.* 1, *p.* 627; *ed. Carey*, 2, *p.* 402;—not Jacq.) ♄ Deyrah Dhoon. Fl. small, greenish-white, March and April; fr. 0.
2. *glaber*, Roxb. (*fl. ind.* 1, *p.* 628; *ed. Carey*, 2, *p.* 403.) ♄ Chittagong. Fl. small, greenish-white, May; fr. 0.
3. *grossus*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 408.) ♄ Nepal. Fl. small, greenish, June; fr. 0.
4. *echinatus*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 410;—*B. M.* 54, *t.* 2767;—*Royle ill. t.* 21.) ♄◡ Nepal. 5-7000 ft. alt. Fl. small, green. In H. C. G. Fl.?

5. *bullatus*, Wall. (*Cat.*) Khassya Mountains. In H. C. G. Fl.?

? 6. *grandiflorus*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 404;—*pl. as. rar.* 3, *t.* 254;—*tent. fl. nep. t.* 30.) ♃ Deyrah Dhoon. Fl. large, white, Has been introduced into H. C. G. Fl.?

CELASTRUS, L. (*DC. pr.* 2, *p.* 5;—*W. and A. pr.* 1, *p.* 158.) *Staff Tree.*

1. *paniculata*, Willd. (*Roxb. fl. ind.* 1, *p.* 621; *ed. Carey*, 2, *p.* 388;—*DC. pr.* 2, *p.* 6;—*W. and A. pr.* 1, *p.* 158;—*J. Grah. Cat. B. pl. p.* 38.—C. nutans, *Roxb. fl. ind.* 1, *p.* 623; *ed. Carey*, 2, *p.* 390;—*DC. l. c.*—C. Rothiana, *Schult;—DC. pr.* 2, *p.* 8.) ♄◡ Neelgherries. The Ghauts. Hilly parts of the Concan. Mahableshwur. Rajmahl Hills. Shrinagur, Nathpur, Deyra Dhoon, Kheree Pass. Fl. small, greenish, March, April, and May; fr. July and August. An empyreumatic oil is extracted from the *seeds*, which, owing to a resinous principle, have a very hot and biting taste. This oil (oleum nigrum) has been employed successfully in Berriberri. (*Herklots. Malcolmson.*)

2. *Wallichiana*, Spreng. (*syst.* 5, *index p.* 150, under C. rigida, *Wall.*—*W. and A. pr.* 1, *p.* 159.—C. rigida, *Wall.;—Roxb. fl. ind. ed Carey*, 2, *p.* 396.—C. buxifolia, *Roxb. H. B. p.* 18; not L.) ♄ Travancore. Fl. small, yellowish-green, March and April; fr. Aug.

3. *montana*, Roxb. (*fl. ind.* 1, *p.* 620; *ed. Carey*, 2, *p.* 387;—*DC. pr.* 2, *p.* 9;—*W. and A. pr.* 1, *p.* 159;—*J. Grah. Cat. B. pl. p.* 38;—*Wight icon.* 2, *t.* 382.) ♃ Coromandel. Hills of the Deccan. Fl. small, greenish-white, March; fr. 0. *Wood* hard and durable. (*Roxb.*)

4. *emarginata*, Willd. (*DC. pr.* 2, *p.* 8;—*Roxb. fl. ind.* 1, *p.* 620;—*ed. Carey*, 2, *p.* 387;—*W. and A. pr.* 1, *p.* 160.) ♄ Coromandel. Fl. small, whitish-yellow, C. S.; fr. H. S. Makes good fences and fuel. (*Roxb.*)

5. *dependens*, Wall. (C. multiflora, *Roxb. fl. ind.* 1, *p.* 622; *ed. Carey*, 2, *p.* 389;—not Lam.) ♄◡ Nepal. Fl. small, whitish-yellow, July and Aug.; fr. Jan.

6. *trigyna*, Lam. (*DC. pr.* 2, *p.* 6.—C. obtusifolia, *Roxb. fl. ind.* 1, *p.* 625; *ed. Carey*, 2, *p.* 393.) ♄ Mauritius. Fl. small, white, faintly sweet-scented, May and June; fr. 0.

7. *monosperma*, Roxb. (*fl. ind.* 1, *p.* 625; *ed. Carey*, 2, *p.* 394.) ♄◡ Silhet. Fl. small, greenish yellow.—In H. C. G. fl. April; fr. Oct. (*Roxb.*)

8. *robusta*, Roxb. (*fl. ind.* 1, *p.* 626; *ed. Carey.* 2, *p.* 395.) L. ♄ Silhet, Assam. Fl. small, greenish yellow.—In H. C. G. fl. Aug.; fr. April.

9. *rufa*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 397.) L. ♄ Nepal, Kemaon. Fl. small, white. Introduced in 1841.

10. *stylosa*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 401.) ♄◡ Nepal. Fl. small, greenish white. Introduced in 1841.

11. *buxifolia*, L. (*DC. pr.* 2, *p.* 8;—*B. M.* 47, *t.* 2114;—*not Roxb.*) ♄ C. G. H. Fl. small, white, April and May; fr. 0.

12. *pyracantha*, L. (*DC. pr.* 2, *p.* 8;—*B. M.* 29, *t.* 1167.) ♄ C. G. H. Fl. smallish, white, April; fr. 0.

13. *oblonga*, Wall. ♄ ◡ Silhet. Fl. Dec.
14. *pallida*, Wall. Singapore. Fl. H. S.
15. *tristyla*, (C. trigyna, *Roxb. fl. ind.* 1, *p.* 624 ; *ed. Carey*, 2, *p.* 391 ; —not Lam.) ♄ Moluccas. In H. C. G. ?
16. *fascicularis*, Wall. Khassya Hills.

Elæodendron, Jacq. ? Roxb. (*W. and A. pr.* 1, *p.* 156.)

1. *glaucum*, Pers. (*DC. pr.* 2, *p.* 10;—*Roxb. fl. ind.* 1, *p.* 638 ; *ed. Carey*, 2, *p.* 432.—Schrebera albens, *Retz. obs.* 6, *p.* 25, *t.* 3.—Celastrus glaucus, *Vahl.*—Mangifera glauca, *Rottb. nov. act. hafn.* 2, *t.* 4, *f.* 1.—Senacia glauca, *Lam.*) *Ceylon Tea-tree.* ♄ Ceylon. Fl. small, green, May ; fr. Sept. and Oct.

Rubentia, Commers. (*Juss gen. pl. p.* 378 ;—*W. and A. pr.* 1, *p.* 156, *annot.*)

1. *olivina*, Gmel. (*syst.* 408.—Elæodendron orientale, *Jacq. icon. rar.* 1, *t.* 48 ;—*DC. pr.* 2, *p.* 10.—E. indicum, *Gärtn. fr.* 1, *p.* 274, *t.* 57, *f.* 5 ;—*Lam. ill. t.* 132 ;—*Roxb. fl. ind.* 1, *p.* 640 ; *ed. Carey*, 2, *p.* 433.) ♄ Madagascar, Mauritius, where it is called *Bois rouge*, *Bois d'olive.* Has been fourteen years in the garden, without fl.

Kurrimia, Wall. (*Cat.—Lindl. Nat. Syst. p.* 119.)

? 1. *macrophylla*, Wall. (*Cat.*—Itea macrophylla, *Roxb. fl. ind.; ed. Carey*, 2, *p.* 419.) ♄ Khassya Mountains. Fl. smallish, yellow, fragrant. Has been introduced into H. C. G. Fl. ?

Microtropis, Wall. (*Cat.—Lindl. Nat. Syst. p.* 119.)

1. *garcinifolia*, (M. discolor, *Wall. Cat.*—Euonymus garcinifolius, *Roxb. H. B. p.* 18 ;—*fl. ind.* 1, *p.* 628 ; *ed. Carey*, 2, *p.* 403.—E. lacer, *Buch. ; DC. pr.* 2, *p.* 5.—Cassine discolor, *Wall. ;—Roxb. fl. ind. ; ed. Carey*, 2, *p.* 378.) ♄ Khassya Mountains. Fl. small, yellow ; and fr. the whole year. (*Roxb.*)

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* *Euonymus dichotomus*, Heyne. Courtallum, Colemala.—*E. Goughii*, Wight icon. 1, t. 215. ♄ Neelgherries.—*E. acutangulus*, Wight. Neelgherries.—*Lophopetalum Wightianum*, Arn. ♄ Malabar.—*L. fimbriatum*, Wight. Mergui.—*Celastrus pyrea*, Telf. Mauritius.—*C. myrtifolia*, L. ♄ Jamaica.—*C. quadrangularis*, Schr. ♄ Brazil.—*C. mexicana*, M. and S. ♄ Mexico.—*Elæodendron Roxburghii*, W. and A. ; Wight ill. 1, t. 71. ♄ Courtallum, Deyra Dhoon.—*Pleurostylia Wightii*, W. and A. Peninsula of India.—*P. Heynii*, W. and A. Peninsula of India.—*Cyrilla Antillarum*, Michx. ♄ W. Indies.—*Ptelidium ovatum*, Pet. Th. ♄ Madagascar.

SUB-ORDER.—HIPPOCRATEËÆ, Lindl. Nat. Syst. p. 120.

Arborescent or climbing shrubs, referred to 6 genera. Of their species, DC. pr. and Spreng. syst. assign 31 to S. America, Mexico and the W.

Indies; 3 to Guinea; 1 to Senegal; 2 to Madagascar; 2 to Timor; and 1 to China. The E. Indian forms amount to 27; 8 of *Hippocratea;* and 19 of *Salacia*. Eight of these inhabit Nepal, Assam, the Khassya, Morung, and Monghir Hills; the rest are found in Java, Cochin-China, Penang, Singapore, Tavoy, Ceylon and Malabar.

"The fruit of Salacia (Tonsella) pyriformis, a native of Sierra Leona, is eatable. It is about the size of a Bergamot Pear; its flavour is rich and sweet. (*Hort. trans.*) The nuts of Hippocratea comosa are oily and sweet. *Swartz.* (*Lindl.*)

HIPPOCRATEA, L. (*DC. pr.* 1, *p.* 567;—*W. and A. pr.* 1, *p.* 103.)

1. *indica,* L. (*DC. o. c. p.* 568;—*W. and A. pr.* 1, *p.* 104;—*Roxb. Corom.* 2, *t.* 130;—*fl. ind.* 1, *p.* 165; *ed. Carey,* 1, *p.* 169;—*J. Grah. Cat. B. pl. p.* 27.) L. ♄ ◡ Pathucottah. Gingie-Hills. Banks of the Quoina river, above Parr bridge. Along the Ghauts. Monghir. Fl. minute, greenish, April; fr. March.
2. *obtusifolia,* Roxb. (*fl. ind.* 1, *p.* 166; *ed. Carey.* 1, *p.* 170;—*DC. pr.* 1, *p.* 569;—*W. and A. pr.* 1, *p.* 104.—Salacia lævigata, *Wight; in Hook. Bot. Misc.* 3, *p.* 295, *suppl. t.* 36. not DC.) L. ♄ ◡ Madura, Tanjore. Fl. small, green, Feb., March and April; fr. March.
3. *arborea,* Roxb. (*Corom.* 3, *t.* 205; *fl. ind.* 1, *p.* 167; *ed. Carey,* 1, *p.* 171;—*DC. pr.* 1, *p.* 569.) ♄ Chittagong, Tippera. Morung. Assam. Fl. small, greenish-yellow, May, June and July; fr. March and April.
4. *viminea,* Wall. (Salacia? viminea, *Wall. Cat.*) Penang. Introduced in 1840.

SALACIA, L. (*DC. pr.* 1, *p.* 570;—*W. and A. pr.* 1, *p.* 104.)

1. *prinoïdes,* DC. (*o. c. p.* 571;—*W. and A. o. c. p.* 105;—*J. Grah. Cat. B. pl. p.* 27;—*Wight. icon.* 2, *t.* 321.—Johnia coromandeliana, *Roxb. fl. ind.* 1, *p.* 169; *ed. Carey.* 1, *p.* 173;—*DC. l. c.*) ♄ Amherst, Moulmein, Attran and Irawaddi river-banks. Coromandel. The Corinda side of the Hill above Kandalla tank. Common about Malabar and Amboolee, Salsette. Assam. Fl. greenish, small, C. S.; fr. H. S.
2. *Roxburgii,* Wall. (*Cat.*—*W. and A. pr.* 1, *p.* 105.—Johnia salacioïdes, *Roxb. fl. ind.* 1, *p.* 168; *ed. Carey.* 1, *p.* 172;—*DC. pr.* 1, *p.* 571.) L. ♄ Chittagong, Tippera. Assam. Fl. small, greenish-orange, H. S; fr. R. S.
3. *longifolia,* Wall. (*pl. as. rar.* 3, *t.* 278.) L. ♄ Khassya Mountains. Nepal. Fl. small, greenish, H. S; fr. 0.
4. *celastrifolia,* Wall. (*Rept.*) In H. C. G. Fl.?

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* *Hippocratea Arnottiana,* Wight. ill. 1, t. 46, f. 1, t. 47. A. ♄ Malabar.—*H. Grahamii,* Wight. ♄ Bombay.—*H. lanceolata,* Buch. Goalpara.—*H. obcordata,* Lam. ♄ ◡ W. Indies.—*H. ovata,* Lam. ♄ ◡ S. America.—*Salacia Brunoniana,* W. and A. Peninsula of India.—*S. reticulata,* Wight. ♄ Ceylon.—*S. verrucosa,* Wight. ♄ Mergui.—

S. multiflora, Wight. ♄ Mergui.—*S. pomifera*, Wall.; Wight. icon. 1, t. 55. Peninsula of India.—*S. oblonga*, Wall.; Wight. ill. 1, t. 47. B.; icon. 1, t. 97. Peninsula of India. Trincomalee.—*Anthodon paniculatus*, Mart. ♄ Rio Janeiro.—*A. ellipticus*, Mart. ♄ Rio Janeiro. —*Tonsella scandens*, Vahl. ♄ ◡ Guiana.

SUB-ORDER.—TRIGONIËÆ, Lindl. Nat. Syst. p. 120.

Sarmentose climbing shrubs, all natives of S. America, referred to one genus containing 5 species.—Properties unknown.

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* *Trigonia villosa*, Aubl. ♄ Cayenne.—*T. mollis*, DC. 5 Brazil.—*T. lævis*, Aubl. 5 Guiana.

ORDER LXXXVII.—STAPHYLEACEÆ, Lindl. Nat. Syst. p. 121.

THE BLADDER-NUT TRIBE.

Trees or shrubs, referred to 2 genera, containing 12 species: 4 from S. America, Mexico and the W. Indies; 1 from N. America; 1 from Japan; and 1 from Europe. Five are from the E. Indies; viz. 1 (*Staphylea*) from the Himalayas; and 4 (*Turpinia*) from Nepal, Silhet, Singapore, and Martaban.—Properties unknown.

Turpinia, Vent. (*DC. 2, p. 3;—W. and A. pr. 1, p. 156.*)

1. *pomifera*, DC. (*l. c.*—Dalrymplea pomifera, *Roxb. fl. ind. 1, p. 633; ed. Carey, 2, p. 422;—Corom. 3, t. 279.*—Canarium? Sajiga, *Buch. Herb.*) L. 5 Assam. Fl. small, yellowish-white, March and April; fr. Sept. and Oct.

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* *T. nepalensis*, Wall. 5 Mountains of the Peninsula and Nepal.—*T. paniculata*, Vent. 5 St. Domingo. Mexico.

ORDER LXXXVIII.—MALPIGHIACEÆ, Juss.—Lindl. Nat. Syst. p. 121.

THE BARBADOES CHERRY TRIBE.

Small trees or shrubs, sometimes climbing, referred by Lindl. to 27 genera. Of species DC. pr., Spreng. syst. and B. Reg. enumerate 175 for S. America, Mexico and the W. Indies; 1 for Sierra Leona; 1 for S. Africa; 1 for Madagascar; 1 for Arabia; 1 for China, and 1 for Timor. In the E. Indies have been found 20 species; 3 of *Hiptage*; 11 of *Hiræa*; — of *Tarrie-*

tia; 5 of *Ancistrocladus*; and 1 of *Platynema*. To these Wight adds Malpighia? heteranthera, (*Ill.* 1, *p.* 138, *t.* 49.) China? Two have been found in Nepal; 3 on the Khassya Mountains; 2 in Bengal; 2 in Ceylon, and the rest in the two Peninsulas of India and Java. Properties almost unknown.

MALPIGHIA, L. (*DC. pr.* 1, *p.* 577.)

1. *coccifera*, L. (*DC. pr.* 1, *p.* 578;—*B. Reg.* 7, *t.* 568;—*Jacq. icon. rar.* 3, *t.* 470;—*J. Grah. Cat. B. pl. p.* 28.) ♄ W. Indies. Fl. smallish, white, with a faint tinge of rose. H. and R. S.; fr. C. S.
2. *punicifolia*, DC. (*pr.* 1, *p.* 578.) ♄ W. Indies. Introduced in 1840.
3. *glabra*. L. (*DC. pr.* 1, *p.* 578;—*B. M.* 21, *t.* 813;—*B. Cab.* 6.533.) W. Indies. Fl. C. S.

BYRSONIMA, Rich. (*DC. pr.* 1, *p.* 579.)

1. *lucida*, DC. (*l. c. p.* 580.—Malpighia lucida, *Swz.*—*B. M.* 51, *t.* 2462;—*Roxb. H. B. p.* 34.) 5 W. Indies. Fl. smallish, white, then rose-coloured, at last scarlet, March, April and May; fr. C. S.
2. *pulcherrima*, Wall. L. ♄ In H. C. G.—S. America?

GAUDICHAUDIA, H. B. and Kth. (*DC. pr.* 1, *p.* 584.)

1. *guaranitica*, St. Hil. (*DC. l. c.*) ♄ ◡ Brazil. Introduced in 1841.

HIPTAGE, Gärtn. (*DC. pr.* 1, *p.* 583;—*W. and A. pr.* 1, *p.* 107.)

1. *Madablota*, Gärtn. (*fr.* 2, *p.* 169. *t.* 116. *f.* 4;—*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 28;—*Wight ill.* 1, *t.* 50.—Gärtnera racemosa, *Roxb. Corom* 1, *t.* 18;—*fl. ind.* 2, *p.* 368.—Molina racemosa, *Cav. diss.* 9, *t.* 263.—Banisteria bengalensis, *L.*—B. tetraptera s. Madablota, *Sonner. it.* 2, *p.* 238. *t.* 135.—B. unicapsularis, *Lam.*—*Rheed.* 6, *t.* 59.) মাধবী *Madhubee.* মাধবী লতা *Madhubee-lata.* বাসন্তী *Basuntee.*—L. ♄ ◡ Coromandel. The Ghauts. Prome, Martaban. Bengal, (Serampore.) Goalpara. Hindoosthan. Nepal. Fl. middle-sized, sweet-scented, white, with a tinge of sulphur, R. and C. S.; fr. C. S.
2. *obtusifolia*, DC. (*pr.* 1, *p.* 583.—Gärtnera obtusifolia, *Roxb. fl. ind.* 2, *p.* 369.) ♄ ◡ China, Fl. like those of *No.* 1, Feb. March and April; fr. R. S.

HIRÆA, Jacq. (*DC. pr.* 1, *p.* 585;—*W. and A. pr.* 1, *p.* 108.)

1. *indica*, Roxb. (*fl. ind.* 2, *p.* 448;—*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 28.—Triopteris indica, *Willd.*;—*Roxb. Corom.* 2, *t.* 160.) ♄ ◡ Circars. Kandalla Ghaut. Chittagong. Martaban. Goalpara. In H. C. G.? Fl.?
2. *nutans*, Roxb. (*fl. ind.* 2, *p.* 447;—*DC. pr.* 1, *p.* 485;—*W. and A. pr.* 1. *p.* 108. ♄ ◡ Interior of Bengal. Fl. small, yellowish, July and Aug.; fr. Nov. and Dec.
3. *hirsuta*, Wall. (*pl. as. rar.* 1, *t.* 13.) ♄ ◡ Prome, Taong-Dong. Fl. yellow, small, sweetish-smelling, R. S.; fr. 0.
4. *nepalensis*, Wall. MSS. ♄ ◡ In H. C. G. Fl.?

STIGMATOPHYLLUM, Ad. Juss. (*B. Reg.* 20, *t.* 1659.)

1. *aristatum*, Lindl. (*B. Reg. l. c.*—Banisteria auriculata, *Roxb. H. B. p.* 34 ;—not Cav.) ♄ ◡ S. America. Fl. largish, yellow. In H. C. G. fl. January to July. (*Roxb.*)

HETEROPTERIS, Kth.

1. *argentea*, Kth (*DC. pr.* 1. *p.* 591.) Nova Granada. ♄. C. S.

BANISTERIA, L. (*DC. pr.* 1, *p.* 587.)

1. *laurifolia*, L. (*DC. o. c. p.* 589 ;—*B. Reg.* 11, *t.* 937.) ♄ ◡ Jamaica. Has been introduced into H. C. G. Fl. ?
2. *periplocæfolia*, Desf. (*DC. pr.* 1, *p.* 589.) ♄ ◡ Porto Ricco. Fl. H. S.

? ANCISTROCLADUS, Wall. (*Cat.*—Wormia, *Vahl. in act. soc. hist. nat. hafn.* 6, *p.* 104 ;—not Rottb.)

1. *extensus*, Wall. (*Cat.*) ♄ ◡ Amherst. Introduced in 1840. Has not fl.

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* *Malpighia fucata*, Ker ; B. Reg. 3, t. 189. ♄ W. Indies ?—*M. urens*, L. B. Reg. 2, t. 96. ♄ S. America.—*M. glabra*, L. B. M. 21, t. 813. ♄ S. America.—*M. cubensis*. Kth. ♄ Havannah.—*M. Aquifolium*, L. ♄ S. America.—*M. faginea*, Swz. ♄ S. America.—*M. ? heteranthera*, Wight. ill. 1, t. 49. ♄ China ?—*Byrsonima verbascifolia*, DC. ♄ Guiana.—*B. nervosa*, DC. ♄ Brazil.—*B. reticulata*, DC. ♄ Cayenne. —*B. pallida*, DC. ♄ Cayenne.—*B. crassifolia*, DC. ♄ Guiana.—*Bunchosia glandulosa*, DC. ♄ W. Indies.—*B. argentea*, DC. ♄ Caraccas.—*B. nitida*, DC. ♄ St. Domingo.—*B. paniculata*, DC. ♄ W. Indies.—*Galphimia glauca*, DC. ♄ ◡ Mexico.—*Hiptage parvifolia*, W. and A. ♄ ◡ Courtallum, Ceylon.—*Tristellateia madagascariensis*, Poir. ♄ ◡ Madagascar.—*Platynema laurifolium*, W. and A. Ceylon.—*Thryallis brachystachys*, Lindl. B. Reg. 14, t. 1162. ♄ ◡ Rio Janeiro.—*Triopteris jamaicensis*, L. ♄ ◡ Jamaica.—*Tetrapteris citrifolia*, Pers. ♄ Cayenne. —*T. buxifolia*, Cav. ♄ St. Domingo.—*Hiræa cordata*, Heyne. ♄ ◡ Peninsula of India ?—*H. lanuginosa*, Wall. Nepal.—*Banisteria auriculata*, Cav. ♄ ◡ Brazil.—*B. splendens*, DC. ♄ ◡ Brazil.—*B. ferruginea*, Cav. ♄ ◡ Brazil.—*B. tenuis*, Lindl. ♄ ◡ Rio Janeiro.—*Heteropteris chrysophylla*, Humb. ; B. M. 60, t. 3237. ♄ ◡ Brazil.—*H. nitida*, Humb. B. Reg. 11 t. 950. ♄ S. America.—*H. floribunda*, Humb. ♄ Mexico.—*H. appendiculata*, DC. ♄ St. Vincent.

SUB-ORDER.—ERYTHROXYLEÆ, Kth.—Lindl. Nat. Syst. p. 122.

Shrubs or trees, of 1 genus, and 31 species : 19 natives of S. America, Mexico and the W. Indies ; 6 of Madagascar, Bourbon, and Mauritius ; and 6 of the E. Indies. Of the latter, 1 has been found in Ceylon, 1 on the Khassya Mountains ; and the rest in Courtallum.

"Erythroxylon Coca is a plant much used by the miners of Peru for its remarkable power in stimulating the nervous system, in which respect it much resembles opium. Its leaves are chewed with a small mixture of finely powdered chalk. No effects that have been ascribed to the immoderate use of opium are exceeded by what seems the consequence of chewing the Coca-leaf." (*Lindl.*)

ERYTHROXYLON, L. (*DC. pr.* 1, *p.* 573.)

1. *monogynum*, Roxb. (*Corom.* 1, *t.* 88; *fl. ind.* 2, *p.* 449.—E. sideroxyloïdes, *Roxb. fl. ind.* l. *c.* excl. No. 2,—non Lam.—Sethia indica, *DC. pr.* 1, *p.* 576;—*W. and A. pr.* 1, *p.* 106;—*Wight ill.* 1, *t.* 48.) ♄ Circars, Mysore, Courtallum. Throughout the Carnatic. Fl. small, greenish, R. and C. S.; fr. C. S.
2. *hypericifolium*, Lam. (*DC. pr.* 1, *p.* 573.) ♄ Mauritius, where it is called *Bois d'huile, Bois de Dames*. Fl. small, whitish, R. S.
3. *longifolium*, Lam. (*DC. pr.* 1, *p.* 574.) ♄ Madagascar, Bourbon. Introduced into H. C. G. Fl. ?
4. *laurifolium*, Lam. (*DC. pr.* 1, *p.* 575;—*Roxb. fl. ind.* 2, *p.* 449.) ♄ Mauritius, where it is called *Bois de Ronde* or *Bois de Rongle*. Introduced into H. C. G. Fl. ?

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* *E. havanense*, Swz. ♄ Jamaica.—*E. buxifolium*, Lam. ♄ Madagascar.—*E. sideroxyloïdes*, Lam. ♄ Bourbon.—*E. macrophyllum*, Cav. ♄ Cayenne.—*E. squamatum*, Vahl. ♄ Cayenne.—*E. mexicanum*, H. B. and Kth. ♄ Mexico.—*E. acuminatum*, (Sethia accuminata, Arn.) Ceylon.—*E. lanceolatum*, (Sethia lanceolata, Wight,) Courtallum.—*E. obtusifolium* (Sethia obtusifolia, Wight.) Courtallum.—*E. Wightii*, (Sethia erythroxyloïdes, Wight.) Courtallum.

ORDER LXXXIX.—PORTULACACEÆ, Lindl. Syst. 1, p. 123.

THE PURSLANE TRIBE.

Succulent herbs, sometimes shrubs or under-shubs, referred by Lindl. to 11 genera. Of the species according to DC. pr., Spreng syst., B. M. and B. Reg. 43 are from S. America, Mexico and the W. Indies; 8 from N. America; 4 from Arabia; 4 from Siberia; 2 from Europe; 1 from Guinea; 1 from the Society Islands; and 1 from St. George's Island. Twenty species inhabit S. Africa, (*Harvey,*) and 13 the E. Indies. Of the latter, 7 belong to *Portulaca;* 5 to *Trianthema;* and 1 to *Talinum;*—3, however, are common to other parts of the world. They are all found in the Peninsula of India, Java, and Bengal, with the exception of 2, discovered at Monghir and Delhi. Talinum Strictum, *Wall. Cat.* is perhaps not different from T. cuneifolium, *Willd.*

Properties of no importance. The use of the common Purslane is well known. Portulacaria afra, *Jacq.* is greedily eaten by the Elephants in S. Africa.

TRIANTHEMA, L. (*DC. pr.* 3, *p.* 351;—*W. and A. pr.* 1, *p.* 354;—*Wight ill.* 2, *p.* 43.)

1. *crystallinum*, Vahl. (*DC. o. c. p.* 352;—*W. and A. pr.* 1, *p.* 355; —*Roxb. fl. ind.* 2, *p.* 444.—T. triquetra, *Rottl.*;—*DC. l. c.*—Papularia crystallina, *Forsk.*) ♃. Arabia. Coromandel. Bengal, (Serampore.) Fl. small, greenish, R. S.; fr, C. S.
2. *obcordatum*, Roxb. (*fl. ind.* 2, *p.* 445;—*W. and A. pr.* 1, *p.* 355;—*Wight icon.* 1, *t.* 288.—T. pentandra. β. obcordata, *DC. pr.* 3, *p.* 352.) ⊙ Coromandel. Bengal, (Serampore.) Fl. small, greenish white, R. and C. S.; fr. C. S. *Leaves* and tender tops eaten by the Natives. (*Roxb.*)
   α. *rubellum*; লালসাবনী *Lal-sabunee.* Plant reddish.
   β. *viridulum*; শ্বেতসাবনী *Shwet-sabunee.* Plant pale-greenish.
3. *decandrum*, L. (*DC. pr.* 3, *p.* 352;—*Roxb. fl. ind.* 2, *p.* 444;—*W. and A. pr.* 1, *p.* 355;—*Wight. icon.* 1, *t.* 296;—*J. Grah. Cat. B. pl. p.* 81.—Zaleya decandra, *Burm. ind. t.* 31, *f.* 3.) গাদবন্যা *Gado-bunya.* ⊙ Peninsula of India. Bengal, (Serampore, but rarely.) Fl. small, greenish-white, R. and C. S.; fr. C. S.

PORTULACA, L. (*DC. pr.* 3, *p.* 353;—*W. and A. pr.* 1, *p.* 355.) *Purslane.*

1. *oleracea*, L. (*DC. l. c.*;—*W. and A. o. c. p.* 356;—*Roxb. fl. ind.* 2, *p.* 463;—*J. Grah. Cat. B. pl. p.* 81;—*Rheed.* 10. *t.* 36.) বড়লুণিয়া *Buro-looniya. Common Purslane.* ⊙ All over India, Ceylon, Java, &c. Fl. small, yellow, R. S.; fr. C. S.
2. *quadrifida*, L. (*DC. pr.* 3, *p.* 354;—*Roxb. fl. ind.* 2, *p.* 464;—*W. and A. pr.* 1, *p.* 356.) ⊙ Coromandel. Bengal. (Serampore.) Fl. very small, yellow; and fr. the whole year.
3. *meridiana*, L. (*Roxb. fl. ind.* 2, *p.* 463. P. quadrifida, L. β. meridiana, *DC. pr.* 3, *p.* 354;—*W. and A. pr.* 1, *p.* 356.—Illecebrum verticillatum, *Burm. ind. p.* 66;—*Rheed.* 10, 31.) ছোটলুণিয়া *Chhoto-looniya.* ⊙ Peninsula of India. Bengal, (Serampore,) &c. Fl. very small, yellow; and fr. the whole year.
4. *pilosa*, L. (*DC. pr.* 3, *p.* 354;—*B. Reg.* 10, *t.* 792;—*Roxb. H. B. p.* 28.) ⊙ South America, about Curacao. Brazil. Martinique, &c. Fl. small, purplish; and fr. the whole year.
5. *linifolia*, Roxb. (*H. B. p.* 28.) ⊙ In H. C. G. fl. and fr. the whole year. (*Roxb.*)

TALINUM, Sims. (*DC. pr.* 3, *p.* 356;—*W. and A. pr.* 1, *p.* 356.)

1. *cuneifolium*, Willd. (*DC. o. c. p.* 357;—*Roxb. fl. ind.* 2, *p.* 465.—T. indicum, *Wight*;—*W. and A. pr.* 1, *p.* 356;—*J. Grah. Cat. B. pl. p.* 81.) ♄ Arabia. Cultivated in gardens. Fl. small, rose-coloured, R. and C. S.; fr. C. S.

2. *reflexum*, Cav. (*DC. pr.* 3, *p.* 357 ;—*B. M.* 37, *t.* 1543.) ♄ S. America. Fl. small, pale yellow, R. S. ; fr. C. S.

CALANDRINIA, H. B. and Kth. (*DC. pr.* 3, *p.* 358.)

1. *speciosa*, Lindl. (*B. Reg.* 19, *t.* 1598 ;—*B. M.* 62, *t.* 3379.) ⊙ N. California. Fl. large, deep crimson, March ; fr. 0.

PORTULACARIA, Jacq. (*DC. pr.* 3, *p.* 360.)

1. *afra*, Jacq. (*DC. l. c.* ;—*Jacq. coll.* 1, *p.* 160, *t.* 22 ;—*DC. pl. grass. t.* 132.—Claytonia Portulacaria, *L.* ;—*Lam. ill. t.* 144, *f.* 2.—Crassula Portulacaria, *L.*—Hänkea crassifolia, *Salisb. pr.* 174.—Portulaca fruticosa, *Thunb.*) ♄ C. G. H. Has not fl. here, though now a strong, largish, healthy shrub, cultivated for more than 15 years.

CLAYTONIA, L. (*DC. pr.* 3, *p.* 360.)

1. *perfoliata*, Don. (*hort. cant. p.* 25 ;—*DC. l. c.* ;—*B. M.* 33, *t.* 1336.—C. cubensis, *Bonpl.*—Limnia perfoliata, *Haw.*) ⊙ Cuba. Mexico. Rocky Mountains, Virginia. Fl. small, white, Feb. and March ; fr. April.

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* *Portulaca foliosa*, Lindl. (B. Reg. 10, t. 793.) Mexico ?—*P. halimoïdes*, L. ⊙ Jamaica.—*P. Gilliesii*, Hook ; B. M. 58, t. 3064 ; B. Reg. 20, t. 1672. ♃. Chili. Fl. large, crimson.—*P. grandiflora*, Hook. ; B. M. 56, t. 2885. ♃ Mendoza. Fl. large, orange and purple.—*Talinum triangulare*, Willd. ♄ W. Indies.—*T. crassifolium*, Willd. ♄ W. Indies ?—*T. fruticosum*, Willd. ♄ S. America.—*T. patens*, Willd. ♄ Mexico.—*Calandrinia pilosiuscula*, DC. ⊙ Chili.—*C. discolor*, Hort. Gött. ; B. M. 61, t. 3357 ; B. Reg. 1839, t. 4. ⊙ Brazil ?—*C. adscendens*, Hortul. ♃. Brazil.—*C. arenaria*, Hook. and Arn. ; B. Reg. 19, t. 1605. ⊙ Valparaiso.—*Montia fontana*, L. ; E. B. 17, t. 1206. ⊙ Europe. N. America.

ORDER XC.—SILENACEÆ, Lindl. Nat. Syst. p. 124.

THE DIANTHUS TRIBE.

Herbs, sometimes undershrubs, referred by Lindl. to 12 genera. According to DC. pr. Spreng. syst, B. M. and B. Reg. about 200 species are natives of Europe ; 32 of the Levant ; 32 of Tauria and Caucasus ; 20 of N. Africa ; 14 of Siberia ; 12 of N. America ; 5 of China and Japan ; 5 of Mexico ; 4 of Tartary ; 2 of Persia ; 2 of Arabia ; 2 of Altai ; 1 of the Canaries ; and 1 of the Straits of Magellan. Thirty species (including some Cerastia) have been found in S. Africa, (*Harvey*,) and 23 in the E. Indies. Of the latter, 1 belongs to *Dianthus* ; 1 to *Gypsophila* ; 1 to *Acosmia* ; 1 to *Cucubalus* ; 9 to *Silene* ; and 10 to *Lychnis* ; but of these, 7 are common to other parts of the world. With the exception of Gypsophila Vaccaria, *Sm.*,

also growing in the plains, they are all natives of the Himalayas, Kunawur, and Cashmere.—Properties unimportant.

DIANTHUS, L. (*DC. pr.* 1, *p.* 355.) *Pink.*

1. *prolifer*, L. (*DC. l. c.*;—*E. B.* 14, *t.* 956.) ⊙ Europe. Fl. small, purplish, Feb. and March; fr. April and May.
2. *Armeria*, L. (*DC. pr.* 1, *p.* 355;—*E. B.* 5, *t.* 317.) ⊙ Europe. Fl. small, red dotted, Feb. and March; fr. April.
3. *barbatus*, L. (*DC. pr.* 1, *p.* 355;—*B. M.* 6. *t.* 205. β.) *Sweet William.* 4. France. Germany. Fl. pink, middle sized, Feb. and H. S.
4. *Carthusianorum*, L. (*DC. pr.* 1, *p.* 356;—β. *B. M.* 43, *t.* 1775.) 4. Europe. Fl. middle-sized, red, C. S; but rarely.
5. *chinensis*, L. (*DC. pr.* 1, *p.* 359;—*Roxb. fl. ind.* 2, *p.* 446;—*J. Grah. Cat. B. pl. p.* 245;—*B. M.* 1, *t.* 25.) ⊙ ♂ China. Fl. middle-sized, deep red, Feb. and H. S.; fr. May.
6. *pratensis*, Bieb. (*DC. pr.* 1, *p.* 358.) ⊙ (here) Crimea. Fl. middle-sized, yellowish-white; and fr. H. S.
7. *Caryophyllus*, L. (*DC. pr.* 1. *p.* 359;—*E. B*, 3, *t.* 214.) *Clove Pink. Carnation.* 4. S. France, England. Fl. smallish, rose-coloured, fragrant; and fr. January—May.
   β. *plenus*; (*Roxb. fl. ind.* 2, *p.* 446;—*J. Grah. Cat. B. pl. p.* 245.) *Double Carnation.* Fl. large, deep rose, fragrant, C. and H. S.
8. *hyssopifolius*, Hortul. 4. S. Europe. Fl. small, pink, C. and H. S.
9. *petræus*, Waldst. and Kit. (*DC. pr.* 1, *p.* 362;—β. *B. M.* 30, *t.* 1204.) 4. Hungary. Fl. largish, white, Jan., Feb. and March.
10. *superbus*, L. (*DC. pr.* 1, *p.* 365;—*B. M.* 9, *t.* 297.) 4. Europe. Fl. large, white, with a tinge of rose. Introduced in 1840.

GYPSOPHILA, L. (*DC. pr.* 1, *p.* 351;—*W. and A. pr.* 1, *p.* 42.)

1. *viscosa*, Murr. (*DC. o. c. p.* 352.) ⊙ Levant. Fl. small, white, March; fr. April.
2. *repens*, L. (*DC. pr.* 1, *p.* 353;—*B. M.* 35, *t.* 1448.) 4. Road-sides of the Alps and Pyrenees. Fl. small, white, with a faint tinge of rose, C. S.; fr. H. S.
3. *muralis*, L. (*DC. pr.* 1, *p.* 354;—*fl. dan. t.* 1268.) ⊙ Denmark. Germany. France. Switzerland. Crimea. Fl. small, pale rose-coloured, Feb.; fr. March.
4. *Vaccaria*, Sm. (*W. and A. pr.* 1, *p.* 42.—Saponaria Vaccaria, *L.*;—*DC. pr.* 1, *p.* 365;—*B. M.* 49, *t.* 2290.—S. perfoliata, *Roxb. fl. ind.* 2, *p.* 445;—*DC. l. c.*) ⊙ Europe. Bengal. Fl. largish, rose-coloured, C. S.; fr. R. S.

SAPONARIA, L. (*DC. pr.* 1, *p.* 365.) *Soap-wort.*

1. *officinalis*, L. (*DC. l. c.*;—*E. B.* 15, *t.* 1060.) 4. Road-sides of Europe. Fl. largish, sweet-scented, pale rose-coloured, Jan., Feb. and March; fr. 0.

CUCUBALUS, L. (*DC. pr.* 1, *p.* 367.)

1. *bacciferus*, L. (*DC. l. c.*;—*E. B.* 22, *t.* 1577.) 4. Shady places of Europe. Himalayahs on Jumbo. (*Royle.*) Fl. middle-sized, greenish-white, C. S.; but rarely.

SILENE, L. (*DC. pr.* 1, *p.* 367;—*W. and A. pr.* 1, *p.* 42.) *Catchfly.*

The annuals among the following species have either small or middle-sized flowers, and these have appeared in February and March, some of them have been succeeded by ripe seeds.

1. *inflata*, Sm. (*DC. pr.* 1, *p.* 368.—Cucubalus Behen, *L.*;—*E. B.* 3, *t.* 164.) 4. Europe. Nepal, Kemaon, Choor, Mussooree. Fl. largish, purple greenish-white, C. S.
2. *oblongifolia*, Otth. (*DC. pr.* 1, *p.* 369.) ⊙ Native place unknown. Fl. white.
3. *apetala*, Willd. (*DC. pr.* 1, *p.* 369.) ⊙ Spain. Fl. greenish.
4. *viscosa*, Pers. (*DC. pr.* 1, *p.* 370.—Cucubalus viscosus, *L.*; *fl. dan. t.* 1209.) ♂. Denmark, Sweden. Italy. Levant. Kunawur. (*Royle.*) Fl. white, C. S.
5. *conica*, L. (*DC. pr.* 1, *p.* 371;—*E. B.* 13, *t.* 922.) ⊙ England. coloured, France. Spain. Levant. Fl. rose-sweet-scented.
6. *anglica*, L. (*DC. pr.* 1, *p.* 371;—*E. B.* 17, *t.* 1178.) ⊙ England, France, &c. Fl. white.
7. *lusitanica*, L. (*DC. pr.* 1, *p.* 371.) ⊙ Portugal. Fl. pale rose-coloured.
8. *gallica*, L. (*DC. pr.* 1, *p.* 371.) ⊙ France. Fl. pale. rose-coloured.
9. *quinquevulnera*, L. (*DC. pr.* 1, *p.* 372;—*E. B.* 2, *t.* 86.) ⊙ England. France. Spain, &c. Fl. white, with five deep red spots.
10. *nocturna*, L. (*DC. pr.* 1, *p.* 372.) ⊙ France. Spain, &c. Fl. brownish.
11. *vespertina*, Retz. (*DC. pr.* 1, *p.* 374;—*B. M.* 18, *t.* 677.) ⊙ Portugal. N. Africa. Fl. deep rose-coloured.
12. *colorata*, Schousb. (*DC. pr.* 1, *p.* 374.) ⊙ Morocco. Island of Scio. Fl. deep rose-coloured.
13. *obtusifolia*, Willd. (*DC. pr.* 1, *p.* 374.) ⊙ Native place uncertain. Fl. deep rose-coloured.
14. *pendula*, L. (*DC. pr.* 1, *p.* 375;—*B. M.* 4, *t.* 114.) ⊙ Sicily. Candia. Fl. deep rose-coloured.
15. *inaperta*, L. (*DC. pr.* 1, *p.* 376.) ⊙ S. Europe. Fl. brownish.
16. *linifolia*, Willd. (*DC. pr.* 1, *p.* 376.) ⊙ Native place unknown. Fl. greenish yellow.
17. *antirrhina*, L. (*DC. pr.* 1, *p.* 376;—*Roxb. H. B. p.* 34.) ⊙ Virginia. Fl. white.
18. *cretica*, L. (*DC. pr.* 1, *p.* 376.) ⊙ Candia. Fl. greenish white.
19. *stricta*, L. (*DC. pr.* 1, *p.* 379.) ⊙ Spain. Fl. purplish,
20. *noctiflora*, L. (*DC. pr.* 1, *p.* 379;—*E. B.* 5, *t.* 291.) ⊙ Denmark, Sweden. England. Fl. cream-coloured, tinged with red.

21. *bupleuroïdes*, L. (*DC. pr.* 1, *p.* 382.) ⊙ (here) Persia. Fl. whitish purple.
22. *Armeria*, L. (*DC. pr.* 1, *p.* 383;—*E. B.* 20, *t.* 1398.) ⊙ Denmark. Germany. France. Fl. purplish.

LYCHNIS, L. (*DC. pr.* 1, *p.* 385.)

1. *Viscaria*, L. (*DC. l. c.*;—*E. B.* 11, *t.* 788.) ♃. Europe. Fl. largish, purplish deep-rose, Feb. and March; fr. April and May.
2. *Coeli rosa*, Desrouss, (*DC. pr.* 1, *p.* 386.—Agrostemma Coeli rosa, *L.*; *B. M.* 9. *t.* 295.) ⊙ Sicily. Barbary. Levant. Fl. large deep rose-coloured, Feb. and March.
3. *dioeca*, L. (*DC. pr. p.* 386;—*E. B.* 22, *t.* 1580.) ⊙ Road sides of Europe. Fl. large, white, Feb. and March.
4. *indica*, Benth. (*Royle. ill. p.* 18.—Silene indica, *Roxb. fl. ind.* 2, *p.* 446.) ⊙ Nepal. In H. C. G. fl. H. S.; fr. R. S. (*Roxb.*)

AGROSTEMMA, L. (*Githago, DC. pr.* 1, *p.* 387.)

1. *Githago*, L. (*E. B.* 11, *t.* 741.—Lychnis Githago, *Lam.*; *DC. l. c.*) *Corn Cockle.* ⊙ Europe. Fl. large, purplish, Feb. and March; fr. April and May.

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* *Dianthus Arbuscula*, Lindl; B. Reg. 13, t. 1086. ♄ China,—*D. longicaulis*, Ten. ♃. Italy.—*D. caryophyllus*, L.—Varieties of double Carnation,—*Saponaria ocymoïdes*, L.; B. M. 5, t. 154. ♃. France.—*S. glutinosa*, Bieb.; B. M. 55, t. 2855. ♂. Caucasus.—*S. bellidifolia*, Sm. ♃. Italy.—*Lychnis neglecta*, G. Don. (Viscaria alba, *Hortul.*) ♃. Native place uncertain.—*L. læta*, Ait. ⊙ Portugal.

ORDER XCI.—ALSINACEÆ,—Lindl. Nat. Syst. p. 125.

THE CHICKWEED TRIBE.

Herbs, annual or perennial, by Lindl. referred to 32 genera. Of these, according to DC. pr. and Spreng. syst. about 140 species inhabit Europe; 44 Siberia; 30 S. America, Mexico and the W. Indies; 30 N. America; 30 Tauria, Caucasus and Dahuria; 12 the Levant; 8 N. Africa; 4 Persia; 4 Greenland; 2 the Straits of Magellan; 1 Madeira; 1 Bourbon; 1 Altai; 1 Arabia; 1 Japan; 1 the Sandwich Islands; and 1 Melville Island. S. Africa contains several species of Cerastium, all of which are common to Europe, and probably introduced from thence, (*Harvey.*) In the E. Indies 24 have been discovered; viz. 1 of *Alsinella*, 2 of *Cherleria*, (*D. Don.*); 7 of *Arenaria*; 4 of *Cerastium*; 1 of *Brachystemma*; 7 of *Stellaria*; 2 of *Leucostemma*; *and* 1 of *Larbrea*;—four of these are common to Europe. Excepting Stellaria tetragona, Bl., (Java) and Cerastium cordifolium, Roxb. (Bengal,) all the rest are natives of the Himalayas and the

Neelgherries. One species, (Brachystemma calycinum, D. Don.) has also been found on the Khassya Mountains.—" Properties of the order none." (*Lindl.*)

Buffonia, L. (*DC. pr.* 1. *p.* 388.)

1. *annua*, DC. (*l. c.*—B. tenuifolia, *Lam.*;—*E. B.* 19, *t.* 1313.) ⊙ England. France. Fl. minute, white, Feb. and March; fr. March and April.

Sagina, L. (*DC. pr.* 1, *p.* 389.)

1. *apetala*, L. (*DC. l. c.*;—*E. B.* 13, *t.* 881.) ⊙ England. Germany. Italy. Fl. minute, pale-green, Feb. and March; fr. April.

Minuartia, Löfl. (*DC. pr.* 3, *p.* 379.)

1. *dichotoma*, Löfl. (*DC. o. c. p.* 380.) ⊙ Spain. Fl. minute, greenish, Feb. and March; fr. April.

Arenaria, L. (*DC. pr.* 1, *p.* 400;—*W. and A. pr.* 1, *p.* 43.)

1. *serpyllifolia*, L. (*DC. pr.* 1, *p.* 411;—*E. B.* 13, *t.* 923.) ⊙ Europe. Sirmore, Deyra Dhoon. Fl. small, white, Feb. and March; fr. —

Cerastium, L. (*DC. pr.* 1, *p.* 414;—*W. and A. pr.* 1, *p.* 42.)

1. *dichotomum*, L. (*DC. l. c. p.* 415.) ⊙ Spain. Algiers.—Fl. small, white, Feb. and March; fr. April and May.
2. *vulgatum*, L. (*DC. pr.* 1, *p.* 415;—*W. and A. pr.* 1, *p.* 43;—*E. B.* 11, *t.* 789.) ⊙ Europe.—Fl. small, white, Feb. and March.
3. *cordifolium*, Roxb. (*fl. ind.* 2, *p.* 458.) ⊙ Bengal.—Fl. and fr. C. S. (*Roxb.*)

Stellaria, L. (*DC. pr.* 1, *p.* 396;—*W. and A. pr.* 1, *p.* 42.)

1. *media*, Sm. (*DC. l. c.*;—*W. and A. l. c.*;—*E. B.* 8, *t.* 537.) ⊙ Europe, Neelgherries.—Fl. small, white, C. S.
2. *triandra*, Wall. ⊙ Nepal.

ORDER XCII.—TAMARICACEÆ.—Lindl. Nat. Syst. p. 126.

THE TAMARISK TRIBE.

Shrubs, occasionally perennial herbs, referred to 3 genera. Of these, 3 species are natives of Dahuria; 4 of Siberia; 2 of Astrachan; 2 of Arabia; 3 of Europe; 1 of N. Africa; 1 of the Canaries; 1 of Senegal; 1 of Persia; and 1 of China. In S. Africa only Tamarix orientalis, Forsk. which also is a native of Arabia and Persia, has been found. The E. Indies exhibit 6 species, (one of which is a variety of Tamarix gallica, L.) viz. 3 of *Tamarix*; 1 of *Trichaurus*; and 2 of *Myricaria*. Four of these inhabit the plains of the Peninsula and Hindoosthan, the latter 2 were found near Cashmere, and in Kunawur.

Bark slightly bitter and astringent. (DC.) Ehrenberg found that the Manna of Mount Sinai is produced by a variety of Tamarix gallica.

This substance being analysed by Mitscherlich, was found to contain no crystallisable Mannite, but to consist wholly of pure mucilaginous sugar. *Lindl.* from *Ann. des scien.* 12,68. (1827.)

TAMARIX, L. (*DC. pr.* 3, *p.* 95;—*W. and A. pr.* 1, *p.* 40.)

1. *gallica*, L. (*DC. o. c. p.* 96;—*E. B.* 19, *t.* 1318.)

β. *indica*, Ehrenb. (T. indica, *Willd.*;—*DC.* 3, *p.* 96;—*Roxb. fl. ind.* 2, *p.* 100; excl. syn. Vahl.—T. gallica, *W. and A. pr.* 1. *p.* 40;—*W. ill.* 1, *t.* 24. *f.* 1;—*J. Grah. Cat. B. pl. p.* 11.—T. epacroides, *Sm.*) ঝাউ *Jhaoo.* 5 Coromandel. Banks of the Indus. Cutch and Scinde, where it is commonly used for fire-wood. Banks of the Jumna and Ganges. Fl. very small, rose-coloured, R. S; fr. C. S.—The *ashes* of this tree, when it grows near the sea are remarkable for containing a quantity of sulphate of soda, and cannot be used as a ley for washing, as they coagulate the soap. When the tree grows in sweet soil in the interior, the ashes are free from the soda, (*Wight.*) The galls of T. indica and dioeca are highly astringent, and are used both in medicine and dyeing. (*Royle.*)

2. *dioeca*, Roxb. (*fl. ind.* 2, *p.* 101;—*DC. pr.* 3, *p.* 96;—*W. and A. pr.* 1, *p.* 40;—*J. Grah. Cat. B. pl. p.* 11.) 5 Soonderbuns. Beds of the Concan and Deccan rivers. Upper India. লাল ঝাউ *Lal Jhaoo.* Fl. very small, rose-coloured, nearly the whole year; fr. C. S.

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* *T. africana*, Poir. ♄ N. Africa. Naples.—*T. canariensis*, Willd. ♄ Canaries.—*T. Pharos*, Buch.; Doab. Agra. Delhi.—*Trichaurus ericoïdes*, Arn.; Wight. ill. 1, t. 24. B. Deccan. Banka. Palaar.—*Myricaria elegans*, Royle. Kunawur,

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ORDER XCIII.—ILLECEBRACEÆ.—Lindl. Nat. Syst. p. 127.

THE KNOT-GRASS TRIBE.

Herbs or half-shrubby plants, by Lindl. referred to 39 genera. Of these, DC. pr. and Spreng. syst. assign about 40 species to Europe; 22 to S. America, Mexico and the W. Indies; 10 to N. America; 8 to N. Africa; 6 to the Canaries; 3 to Guinea; 3 to Arabia; 1 to Abyssinia; 1 to Senegal; 1 to Madagascar; 1 to Persia; 1 to Dahuria; 1 to Siberia; 1 to China; 2 to New Holland; and 1 to Van Diemen's Land. Excluding Scleranthus annuus, S. Africa exhibits 49 species. In the E. Indies about 17 forms have been discovered; viz. 1 of *Herniaria.* (Cashmere.) 1 of *Hapalosia;* (common;) 1 of *Illecebrum;* (Kunawur;) 4 of *Polycarpæa;* (Ceylon, Peninsula of India, Silhet;) 2 of *Drymaria;* (Himalayas, Khassya Mountains, Dindigul, Taong-Dong, Java;) and 8 of *Mollugo;* (Ceylon, both Peninsulas, Bengal, Nepal, Cochin-China.) A few of them are common to other parts of the world.

"A trace of astringency pervades the order, and is the only sensible property that it is known to possess." (Lindl.)

HAPALOSIA, Wall. (*W. and A. pr.* 1, *p.* 358.)

1. *Löflingiæ*, Wall. (*W. and A. l. c.*—Pharnaceum depressum, *L.*—Löflingia indica, *Retz.*;—*Roxb. fl. ind.* 1, *p.* 165; *ed. Carey*, 1, *p.* 169.—Polycarpæa? depressa, *DC. pr.* 3, *p.* 375.) ⊙ Both Peninsulas of India, Bengal, (Serampore,) &c. Fl. small, whitish, Feb.; fr. March.

SPERGULA, L. (*DC. pr.* 1, *p.* 394.) *Spurrey.*

1. *arvensis*, L. (*DC. l. c.*;—*E. B.* 22, *t.* 1535.) ⊙ Fields of Europe. Fl. small, white, C. S.; fr. March.
2. *pentandra*, L. (*DC. l. c.*;—*E. B.* 22, *t.* 1536.) ⊙ Woods of Europe. Fl. small, white, C. S.; fr. Feb.

SPERGULARIA, Pers. (*synop.* 1, *p.* 504.)

1. *rubra*, Pers. (*l. c.*—Arenaria rubra, *L.*; *DC. pr.* 1, *p.* 401;—*E. B.* 12, *t.* 852.) ⊙ Europe, Africa. Fl. smallish, purplish, Feb.; fr. 0.

MOLLUGO, L. (*DC. pr.* 1, *p.* 391;—*W. and A. pr.* 1, *p.* 43.)

1. *pentaphylla*, L. (*DC. l. c.*;—*W. and A. o. c. p.* 44;—*Roxb. fl. ind.* 1, *p.* 359; *ed. Carey*, 1, *p.* 360;—*J. Grah. Cat. B. pl. p.* 12;—*Burm. zeyl. t.* 8, *f.* 1.) খেত পাপড়া *Khet-papra.* ⊙ Peninsula of India. Bengal, (Serampore.) Hindoosthan. Fl. small, white, Feb.; fr. H. S.
2. *triphylla*, Lour. (*DC. pr.* 1, *p.* 392;—*W. and A. pr.* 1, *p.* 44;—*Roxb. fl. ind.* 1, *p.* 360; *ed. Carey*, 1, *p.* 360;—*J. Grah. Cat. B. pl. p.* 12.—M. Linkii, *DC. l. c.*—M. paniculata, *Burm.*—M. radiata, *Ruiz. and Pav.*; *DC. l. c.*;—*Burm. zeyl. t.* 6, *f.* 2;—*Rheed.* 10, *t.* 26.) জল পাপড়া *Jul-papra.* ⊙ China. Ceylon. Peninsula of India. Bengal. (Serampore.) Hindoosthan. Nepal. Chili. Fl. small, white; and fr. the whole year.
3. *Spergula*, L. (*DC. pr.* 1, *p.* 391;—*W. and A. pr.* 1, *p.* 44;—*J. Grah. Cat. B. pl. p.* 12;—*Burm. ind. t.* 5, *f.* 4.—M. verticillata. *Roxb. fl. ind.* 1. *p.* 360; *ed. Carey*, 1, *p.* 360; not L.—M. erecta, *Burm. ind. p.* 32.—M. parviflora, *Ser.*;—*DC. pr.* 1, *p.* 391.—Pharnaceum Mollugo, *L.*;—*Roxb. fl. ind.* 2. *p.* 102;—*Burm. zeyl. t.* 7;—*Rheed* 10. *t.* 24.) ঘিমি শাক *Ghimi shak.* ⊙ Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Fl. small, white; and fr. the whole year.

ORDER XCIV.—OCHNACEÆ, DC.—Lindl. Nat. Syst. p. 129.

Trees or shrubs, by Lindl. referred to 7 genera. Of these, DC. pr. and Spreng. syst. enumerate 34 species for S. America, Mexico and the W. Indies; 5 for Madagascar; 1 for Mauritius; 3 for tropical Africa; 4 for S. Africa; (*Harvey,*) and 1 for Arabia. In the E. Indies have been discovered 8 species of *Ochna;* (Travancore. Goruckpore. Silhet. Nepal. Prome,) 3 of

Gomphia; (Ceylon. Singapore. Sumatra.) and 3 of *Euthemis,* (Singapore.) —Properties unimportant.

Ochna, L. (*DC. pr.* 1, *p.* 735;—*W. and A. pr.* 1, *p.* 152.)

1. *squarrosa,* L. (*W. and A. l. c.;—Roxb. Corom.* 1, *t.* 89;—*fl. ind.* 2, *p.* 643;—*Wight. ill. t.* 69;—*J. Grah. Cat. B. pl. p.* 37.—O. obtusata, *DC. pr.* 1, *p.* 735.—O. lucida, *Lam. ill. t.* 472, *f.* 1;—*DC. l. c.*) কনক চাঁপা *Kunuk-champa.* ♃ Both Peninsulas of India. Assam. Fl. large, gold-coloured, fragrant, Feb. and March; fr. May and June.
2. *stipulacea,* Colebr. (*Wall. Cat.*) In H. C. G.—Fl. ?

Gomphia, Schreb. (*DC. pr.* 1, *p.* 736;—*W. and A. pr.* 1, *p.* 152.)

1. *angustifolia,* Vahl. (*DC. l. c.;—W. and A. l. c.;—J. Grah. Cat. B. pl. p.* 38.—G. zeylanica, *DC. l. c.*—G. malabarica, *DC. l. c.*—Ochna zeylanica, *Lam;—Burm. zeyl. t.* 56;—*Rheed.* 5, *t.* 48. 52.) ♄ Ceylon. Travancore. S. Concan. Fl. yellowish, middle-sized. In H. C. G. —Fl. ?

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* *Ochna nana,* Buch. Goruckpore.—*O. Wightiana,* Wall; Wight. icon. 1, t. 223. Travancore.—*O. Heyneana,* W. and A. Peninsula of India.—*O. mauritiana.* Lam. ♄ Mauritius.—*O. ciliata,* Lam. ♄ Madagascar.—*Gomphia sumatrensis,* Jack, Singapore.—*G. oleæfolia,* St. Hil. ♄ Brazil.—*G. guianensis,* Rich. ♄ Guiana. Brazil.—*G. laurifolia,* Swz. ♄ Jamaica. Cayenne.—*Walkera integrifolia,* DC. ♄ Guiana.—*Euthemis leucocarpa,* Jack. ♄ Singapore. Penang.—*E. minor,* Jack. ♄ Singapore.—*Elvasia calophylla,* DC. ♄ Brazil.—*Castela depressa,* Turp. ♄ St. Domingo.—*C. erecta,* Turp. ♄ Antigua.

ORDER XCV.—SIMARUBACEÆ, Rich.—Lindl. Nat. Syst. p. 129.

THE QUASSIA TRIBE.

Trees or shrubs, by Lindl. referred to 6 genera. Of these, DC. pr. and Spreng. syst. enumerate 11 species of S. America and the W. Indies; and 1 of Madagascar. In the E. Indies have been found 2 species of *Samadera;* (Java. Ceylon. Malabar. Amherst.) and 1 of *Nima.* (Nepal.)

The whole order is distinguished by its intense bitterness. Quassia-wood is well known.

Quassia, L. (*DC. pr.* 1, *p.* 733.)

1. *amara,* L. fil. (*DC. l. c.;—B. M.* 14, *t.* 497.) *Quassia tree.* ♄ Surinam. Fl. largish, deep-red, Feb.; fr. 0. Produces *Quassia-wood.*

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* *Simaruba officinalis,* DC. ♄ Guiana. W. Indies.—*S. glauca,* DC. ♄ Cuba. *Simaba guianensis,* Aubl. ♄ Guiana.—*S. floribunda,* St. Hil. ♄ Brazil. —*S. ferruginea,* St. Hil. ♄ Brazil.—*S. suaveolens,* St. Hil. ♄ Brazil.—

Samadera indica, Gärtn.; Wight. ill. 1, t. 68. ♄ Java. Ceylon. Malabar. —*S. lucida*, (Niota lucida, Wall. pl. as. rar. 2, t. 168.) 5 Amherst.—*Nima quassoïdes*, Buch. Nepal. Valley of Gurhwal. Banks of the Sutlej.

ORDER XCVI.—RUTACEÆ, DC.—Lindl. Nat. Syst. p. 130.

THE RUE TRIBE.

Trees or shrubs, very rarely herbaceous plants, by Lindl. referred to 44 genera. Of these, DC. pr. and Spreng. syst., assign about 48 to New Holland and the South Sea Islands; 44 to S. America, Mexico and the W. Indies; 12 to Europe; 3 to the Levant; 2 to Tauria and Caucasus; 2 to Dahuria; 1 to Siberia; 2 to Persia; 1 to the Canaries; 2 to N. Africa; and 1 to Mauritius. One hundred and ten species inhabit S. Africa, (*Harvey.*) In the E. Indies have been found 1 *Ruta;* 1 *Aplophyllum;* 2 *Cyminosma;* 1 *Evodia;* (Moluccas, DC.) and 1 *Dictamnus.* One Cyminosma stretches from China, Cochin China, Java and Ceylon, through both Peninsulas of India, up to the Khassya Mountains. The rest are natives of Nepal and the Himalayas.

This order in general, possesses sharp, aromatic, bitterish, tonic or intensely stimulant properties. The common Rue is well known on account of its very strong and unpleasant smell. It is a powerful stimulant in diseases of the uterus. "Ruta angustifolia, Pers., said to be common in Persia, Cabul, and Tinkaboon, is given in India as a substitute for R. graveolens, L., and considered emenagogue. R. albiflora is employed as a stimulant in the hills." (*Royle.*) Dictamnus albus, L., whose bitter aromatic root was formerly used as a sudorific, is now nearly obsolete. Its abundance of volatile oil is so great, that in hot weather the surrounding atmosphere may be lighted by a candle. The Diosmeæ of S. Africa are remarkable for their powerful and offensive smell, more especially Barosma crenulata, Willd. (*Bucku,*) whose leaves have been much extolled in wounds, rheumatism, spasms, and diseases of the bladder. The American species are in many instances powerfully febrifugal, f. ex. Galipea Cusparia, St. Hil.; Evodia febrifuga, St. Hil.; Ticorea febrifuga, St. Hil.; Hortia brasiliana, Vand, &c.

RUTA, L. (*DC. pr. p* 709;—*W. and A. pr.* 1, *p.* 146.) *Rue.*

1. *angustifolia*, Pers. (*DC. o. c. p.* 710;—*W. and A. l. c.*;—*B. M.* 49, *t.* 2311.—R. chalepensis, *Vill.*—R. graveolens, *α. L. sp.* 548;—*Roxb. fl. ind.* 2, *p.* 374;—*J. Grah. Cat. B. pl. p.* 36.—R. chalepensis, *β. L. mant. p.* 69.) ♄ S. France. Cultivated in India. Fl. small, yellowish green, heavy smelling, C. S; fr. H. S.
2. *albiflora*, Hook. (*exot. fl.* 3, *part.* 2. *t.* 79;—*Spr. syst.* 2, *p.* 320.) ♄ Nepal. Fl. small, white.—C. S; fr. 0.

CYMINOSMA, Gärtn. (*DC. pr.* 1, *p.* 722 ;—*W. and A. pr.* 1, *p.* 146.)

1. *pedunculata*, DC. (*W. and A. o. c. p.* 147 ;—*Roxb. fl. ind.* 2, *p.* 239 ; —*Wight ill.* 1, *t.* 65 ;—*J. Grah. Cat. B. pl. p.* 36.—C. Ankænda, *Gärtn. fr.* 1, *p.* 280, *t.* 58, *f.* 6 ;—*DC. l. c.*—Jambolifera pedunculata, *Vahl. symb.* 3, *p.* 52, *t.* 61.—Gela lanceolata, *Lour.*—Ximenia ? lanceolata, *DC. pr.* 1, *p.* 533 ;—*Rheed.* 5, *t.* 15.) ♄ Ceylon. Coromandel. S. Concan. Rangoon. Chittagong. Assam. Fl. small, greenish-white March ; fr. 0.
2. *Reevesii*, Wall. ♄ China. In H. C. G.

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* *Ruta pinnata*, L. ; B. Reg. 4, t. 307. ♄ Canaries.—*R. montana*, Clus. ♄ S. Europe.—*R. graveolens*, L. ♄ S. Europe.—*R. chalepensis*, Pers. ♄ N. Africa.—*R. bracteosa*, DC. ♄ Sicily.—*R. macrophylla*, Sol. ; B. M. 45, t. 2018. ♄ N. Africa.—*Aplophyllum patavinum*, Ad. Juss. ♃. Padua.—*A. pubescens*, Ad. Juss. ♃. Spain.—*A. suaveolens*, Ad. Juss. (Ruta linifolia L. β. grandiflora, B. M. 48, t. 2254.) ♄ Crimea.—*A. cordatum*, (Ruta cordata, Don.) ♄ Nepal.—*Galipea trifoliata*, *Aubl.* ♄ Guiana.—*G. Cusparia*, St. Hil. ♄ S. America.—*G. odoratissima*, Lindl. ; B. Reg. 17, t. 1420.—♄ Rio Janeiro.—*Diglottis obovata*, Nees. ♄ Brazil.—*Erythrochiton brasiliensis*, Nees. ♄ Brazil.—*Ticorea foetida*, Aubl. ♄ Guiana.—*T. jasminiflora*, St. Hil. ♄ Rio Janeiro. —*Monniera trifolia*, L. ⊙ Guiana.

ORDER XCVII.—ZYGOPHYLLACEÆ.—Lindl. Nat. Syst. p. 133.

THE BEAN-CAPER TRIBE.

Herbs, under-shrubs, shrubs, or trees, referred by Lindl., (including Aitonia) to 18 genera. Of these, L[illegible]. pr. and Spreng. syst., enumerate 13 species for S. America, Mexico and the W. Indies ; 1 for N. America ; 4 for Europe ; 10 for N. Africa ; 1 for Senegal ; 1 for Sierra Leona ; 1 for Arabia ; 1 for Persia ; 1 for Siberia ; 3 for the Levant ; and 3 for New Holland and the South Sea Islands. The S. African forms amount to 40, (*Harvey*) ; and the E. Indian ones to 6. Of the latter, 1 belongs to *Tribulus*, (both Peninsulas of India, Bengal, Monghir.) 1 to *Biebersteinia*, (Kunawur ;) 1 to *Peganum*, (Peninsula of India, Agra ;) 1 to *Zygophyllum ?* (Taong-Dong ;) and 1 to *Melianthus ?* (Kemaon.)—Biebersteinia odora is also common to Altai, and Peganum Harmala to Europe and the Levant.

" The woody plants of the order are remarkable for the extreme hardness of their wood. All the Guaiacums are well known for their exciting properties ; the bark and wood of Guaiacum sanctum and officinale have a somewhat bitter and acrid flavour, and are principally employed as sudorifics or alteratives ; they contain a particular matter, often designated as

resin or gum-resin, but which is now considered a distinct substance, called Guaiacine." (*DC. Lindl.*)

TRIBULUS, L. (*DC. pr.* 1, *p.* 703;—*W. and A. pr.* 1, *p.* 144.) *Caltrops.*

1. *lanuginosus*, L. *DC. o. c. p.* 704;—*W. and A. o. c. p.* 145;—*Roxb. fl. ind.* 2, *p.* 401;—*Wight icon.* 1, *t.* 98;—*J. Grah. Cat. B. pl. p.* 35;—*Burm. zeyl. t.* 106, *f.* 1.) গোখুর *Gokhoor.* ♃. Paghamew. Ceylon. Coromandel. Deccan. Bengal, (Serampore.) Monghir. Fl. large, bright yellow, sweet-scented; fr. the whole year.
2. *cistoïdes*, L. (*DC. pr.* 1, *p.* 703;—*Jacq. Schönb. t.* 103;—*B. R.* 10, *t.* 791;—*Roxb. H. B. p.* 33.) ♃. S. America. Fl. large, yellow; and fr. the whole year.

GUAIACUM, L. (*DC. pr.* 1, *p.* 706.)

1. *officinale*, L. (*DC. o. c. p.* 707;—*B. Reg.* (1839,) *t.* 9.) Jamaica, Hayti. Fl. small, beautiful, blue. Has not fl. here as yet, and does not seem to like the climate.

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* *Tribulus albus*, Poir. ♄ Senegambia.—*Kallströmia maxima*, Scop. (Tribulus maximus, L.) ☉ Jamaica.—*Peganum Harmala*, L. ♃. Madrid, Levant. On the ruins of Beejapore, Agra.—*Fagonia cretica*, L.; B. M. 7, t. 241. ☉ S. Europe, N. Africa.—*F. arabica*, L. ♄ Barbary, Egypt, Arabia.—*F. glutinosa*, Delile. ♃. Egypt.—*F. mysorensis*, Roth.; Wight. ill. 1, t. 64. ☉ Grain-fields in the Deccan.—*Zygophyllum simplex*, L. ☉ St. Jago.—*Z. coccineum*, L. ♄ Egypt.—*Larrea nitida*, Cav. ♄ S. America.—*Guaiacum sanctum*, L. ♄ Equinoctial America.

ORDER XCVIII.—XANTHOXYLACEÆ.—Lindl. Nat. Syst. p. 135.

Trees or shrubs, sometimes climbing, by Lindl. referred to 15 genera. Of these, DC. pr. and Spreng. syst. assign 22 species to S. America, Mexico and the W. Indies; 4 to N. America; 2 to Senegal; 1 to Madagascar; 6 to Mauritius and Bourbon; 1 to Abyssinia; 4 to China; 2 to Japan; and 2 to New Holland. S. Africa exhibits 4 species, (*Harvey,*) and the E. Indies 37. Of the latter 2-3 belong to *Brucea;* 22 to *Xanthoxylum;* 1 to *Blackburnia?* (*Roxb.*); 1 to *Lacuris;* 3-4 to *Toddalia;* 4 to *Ailantus;* 1 to *Eurycoma;* and 1 to *Ptelea?* (*Lour.*); but two are also natives of China. With the exception of 11 which inhabit Nepal, the Khassya and Morung Mountains, the rest are nearly all natives of the Peninsulas of India, the Moluccas and Cochin China. The Javanese species, including Ruteæ, are stated by Blume to be 14, (*Wight;*) but we are not acquainted with their generic distribution.—To the Mauritius and Bourbon Xanthoxylaceæ, Wall. Cat. adds 2 species of Xanthoxylon.

"Nearly all the species of this order are aromatic and pungent—Xanthoxylon Clava Herculis and fraxineum are powerful sudorifics; they are

remarkable, according to Barton, for their extraordinary power in exciting salivation, whether applied immediately to the gums or taken internally; two plants are reputed to have been used successfully in paralysis of the muscles of the mouth and in rheumatic affections. (*DC.*)—Xanthoxylon hyemale is employed as a remedy for pain in the ear, for which purpose the powder of its bark is made use of.—Brucea antidysenterica contains a poisonous principle, called Brucia, which is similar in its effects to Strychnia, but 12 or 16 times less energetic than that alkali. *Turner.* (*Lindl.*)

Brucea, J. S. Mill. (*DC. pr.* 2, *p.* 88.)

1. *sumatrana*, Roxb. (*fl. ind.* 1, *p.* 449; *ed. Carey*, 1, *p.* 469;—*DC. l. c.*;—Gonus amarissimus, *Lour.*;—*Rumph. auct. t.* 15.) ♄ Sumatra, Moluccas. Cochin China. China. Assam. Fl. minute, dark-purple, H. S.; fr. C. S. Green parts intensely bitter. (*Roxb.*)
2. *mollis*, Wall. (*Rept.*) In H. C. G.? Khassya Hills. In. H. C. G. fl. R. S.

Xanthoxylon, L. (*W. and A. pr.* 1, *p.* 147.)

1. *triphyllum*, Juss. (*Wight. ill.* 1, *p.* 169;—*J. Grah. Cat. B. pl. p.* 36;—*Wight. icon.* 1, *t.* 149.—X. zeylanicum, *DC. pr.* 1, *p.* 728.—Evodia triphylla, *DC. pr.* 1, *p.* 724.—Fagara triphylla, *Lam.*;—*Roxb. fl. ind.* 1, *p.* 416; *ed. Carey*, 1, *p.* 436;—*Rumph.* 2, *t.* 62.) ♄ Amboyna. Philippine Islands. Penang, Singapore. Ravines at Kandalla. Parr Ghaut. Table land of Mahableshwur. Fl. small, white, H. S. *Capsules* of a strong aromatic taste. According to Rumphius, the Amboyna women prepare a cosmetic from the bark, and apply it to improve their complexion.
2. *limonifolium*, Wall. (*Rept.*) ♄ Khassya Hills. Fl. minute, greenish-white, Feb. and March.
3. *alatum*, Roxb. (*fl. ind.* 3, *p.* 768.—X. armatum, *DC. pr.* 1, *p.* 727; not Roxb. H. B. p. 72, no such name being found there.—X. acanthopodium, *DC. l. c.*) ♄ Nepal, Simla. Rohilcund, Oude. Fl. minute, greenish, H. S.; fr. R. S.
4. *nitidum*, DC. (*DC. pr.* 1, *p.* 727;—*B. M.* 52, *t.* 2558.—Fagara nitida, *Roxb. fl. ind.* 1, *p.* 419; *ed. Carey*, 1, *p.* 439.) ♄ China. Fl. minute, greenish, fragrant, Feb.; fr. 0.
5. *Rhetsa*, DC. (*pr.* 1, *p.* 728;—*W. and A. pr.* 1. *p.* 148;—*J. Grah. Cat. B. pl. p.* 36.—Fagara Rhetsa, *Roxb. fl. ind.* 1, *p.* 417; *ed. Carey*, 1, *p.* 438;—*Rheed.* 5, *t.* 34.) L. ♄ Mountains of Coromandel. Parr village. Kandalla. Kandesh. Fl. minute, yellow. Was introduced into H. C. G. in 1803, but had not yet fl. in 1814. Unripe *capsules* gratefully aromatic, and tasting like fresh orange-peel. Inner lamina of the *bark* bitter and acrid.
6. *Budrunga*, DC. (*pr.* 1, *p.* 728.—Fagara Budrunga, *Roxb. fl. ind.* 1, *p.* 417; *ed. Carey*, 1, *p.* 437.) L. ♄ Assam. Fl. minute, greenish, March and April; fr. July and Aug. *Seeds* have the fragrance of lemon-peel, and being of a warm spicy nature, are used medicinally by the Natives.
7. *violaceum*, Wall. Cat. Nepal. ♄ Has been introduced into H. C. G. Fl.?
8. *undulatum*, Wall. Cat. Mauritius. In H. G. G. Fl.?
9. *obovatum*, Wall. Khassya Hills.

TODDALIA, Juss. (*DC. pr.* 2, *p.* 83;—*W. and A. pr.* 1, *p.* 149.)

1. *aculeata*, Pers. (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 37.—T. asiatica, *Lam.*—T. nitida, *Lam. ill. t.* 139, *f.* 1.—T. rubricaulis, *Willd.*—Scopolia aculeata, *Sm.*;—*Roxb. fl. ind.* 1, *p.* 616; *ed Carey*, 2, *p.* 379.—Paullinia asiatica, *L.*—*Burm. zeyl. t.* 24;—*Rheed.* 5. *t.* 41.) ♄ ◡ Coromandel. S. Concan. Fl. small, white, Feb. and March; fr. 0.—Every part of this shrub has a strong pungent taste. The *roots*, when fresh cut, have a particularly pungent smell. The ripe *berries*, as pungent as black pepper, are pickled by the Natives. (*Roxb.*)
2. *floribunda*, Wall. (*pl. as. rar.* 3, *t.* 232;—*Wight. ill.* 1, *t.* 66, under T. aculeata.) ♄ ◡ Mountains of Nepal. Fl. small, greenish yellow, H. S; fr. 0.
3. *capparidea*, Wall.—In H. C. G. Bourbon.

PTELEA, L. (*DC. pr.* 2, *p.* 82.)

1. *trifoliata*, L. (*DC. l. c.*) ♄ N. America. Has been introduced into H. C. G. Fl. ?

AILANTUS, Desf. (*DC. pr.* 2, *p.* 88;—*W. and A. pr.* 1, *p.* 150.—Ailantos: Chinese name for A. glandulosus, Desf.)

1. *excelsus*, Roxb. (*Corom.* 1, *t.* 23; *fl. ind.* 2, *p.* 450;—*DC. o. c. p.* 151;—*W. and A. l. c.*;—*Wight. ill.* 1, *t.* 67;—*J. Grah. Cat. B. pl. p.* 37.) L. ♄ Coromandel. Surat. Broach and Baroda. Deccan. Fl. small, yellow, C. S.—*Wood*, white, light, much used for making sword handles, &c. (*J. Grah.*)
2. *glandulosus*, Desf. L. ♄ China. Moluccas.

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* *Dictyoloma Vandellianum*, Ad. Juss. ♄ Brazil.—*Brucea antidysenterica*, Mill. ♄ Abyssinia.—*Xanthoxylon ovalifolium*, Wight. ♄ Shevaggery Hills.—*X. sepiarium*, Wight. ♄ Pulicat Hills near Madras.—*X. emarginatum*, Swz. ♄ Jamaica.—*X. Clava Herculis*, L. ♄ W. Indies.—*X. Avicenniæ*, DC. ♄ China.—*X. acuminatum*, Swz. ♄ Jamaica. *X. aromaticum*, Willd. ♄ W. Indies.—*Lacuris ilicioïdes*, Buch. Morung Mountains.—*Toddalia lanceolata*, Lam. ♄ Mauritius.—*T. paniculata*, Lam. ♄ Mauritius.—*T. angustifolia*, Lam. ♄ Mauritius.—*A. malabaricus*, DC. Rheed, 6, t. 15. ♄ Ravines at Nagotnah. Korinda village. Kandalla.—*Eurycoma longifolia*, Jack. ♄ Sumatra. Singapore. Pulo-Dinding. Penang.

ORDER XCIX.—GERANIACEÆ, DC.—Lindl. Nat. Syst. p. 137.

THE GERANIUM TRIBE.

Herbs, under-shrubs or shrubs, by Lindl. referred to 10 genera. Of these, according to DC. about 50 species (Geraniums and Erodiums) in-

habit Europe; 4 Siberia; 5 Caucasus and Tauria; 2 Iberia; 5 Dahuria; 2 the Levant; 9 N. Africa; 2 Teneriffe and Madeira; (1 Geranium; 1 Pelargorium) 2 St. Helena; (P.) 11 New Holland and Van Diemen's Land; (9 G. and E.; 2 P.) 1 Arabia; (E.) 2 N. America (E.); 14 S. America; (2 Rhynchothecas; the rest G. and E.) and 1 Tristan d'Acunha. (P.) In S. Africa have been found 350 species; viz. 8 Monsonias, and a few Geraniums and Erodiums, the rest all Pelargoniums. (*Harvey.*) The E. Indian forms amount to about 14, (13 of *Geranium*, and 1 of *Erodium.*) With the exception of one species from the Peninsula of India, they are all natives of the Himalayas. One of them, Geranium eriostemon, Fisch, is also an inhabitant of Dahuria.

"An astringent principle and an aromatic or resinous flavour are the characteristics of this order.—Some of the Pelargoniums are acidulous, but this genus is chiefly known as an object of garden culture, for which its great beauty, and the facility with which the species or supposed species intermix, render it well adapted. (*Lindl.*) This intermixture, so unpleasant to those who wish to see plants distinct in their characters, has fully justified W. Curtis's prophecy (in 1797), "that in a few years, from the multiplication of seminal varieties, springing from seeds casually or perhaps purposely impregnated with the pollen of different sorts, such a crop will be produced as will baffle all our attempts to reduce to species, or even regular varieties."

Monsonia, L. fil. (*DC. pr.* 1, *p.* 638, *sect.* 3.)

1. *pilosa*, Willd. (*DC. l. c.*—M. speciosa, *Swt. ger. t.* 77.) ♃. C. G. H. Fl. large, greenish-white, with a red eye, March.
2. *speciosa*, L. (*DC. pr.* 1, *p.* 638;—*B. M*, 3, *t.* 73.) ♃. C. G. H. Fl. large, pale rose-coloured, with a crimson eye, March.

Geranium, L. (*DC. pr.* 1, *p.* 639;—*W. and A. pr.* 1, *p.* 133.)

1. *nepalense*, Swt. (*ger. t.* 12;—*DC. pr.* 1, *p.* 643.) ⊙ Nepal, Mussooree. Cashmere. Fl. largish, deep rose, with a dark purple eye, C. S.; fr. H. S.
2. *rotundifolium*, L. (*DC. pr.* 1, *p.* 643;—*E. B.* 3, *t.* 157.) ⊙ Europe. Fl. small, deep rose, Feb. and March; fr. April.
3. *columbinum*, L. (*DC. l. c.*;—*E. B.* 4, *t.* 259.) ⊙ Europe. Fl. smallish, rose-coloured, March.
4. *dissectum*, L. (*DC. pr.* 1, *p.* 643;—*E. B.* 11, *t.* 753.) ⊙ Europe, Iberia. Fl. small, rose, Feb. and March; fr. April.
5. *lucidum*, L. (*DC. pr.* 1, *p.* 644;—*E. B.* 2, *t.* 75.) ⊙ Europe. Fl. small, rose, Feb. and March; fr. April.
6. *Robertianum*, L. (*DC. l. c.*;—*E. B.* 21, *t.* 1486.) ⊙ Europe. Fl. small, purplish, Feb. and March; fr. April.

Erodium, L'Herit. (*DC. pr.* 1, *p.* 644.)

1. *cicutarium*, Sm. (*DC. o. c. p.* 646;—*E. B.* 25, *t.* 1768;—*Roxb. H. B. p.* 49.) ⊙ Europe. N. Africa. Levant. Fl. small, deep rose, Feb. and March; fr. April.

2. *moschatum*, Ait. (*DC. pr.* 1, *p.* 647;—*E. B.* 13, *t.* 902.) ⊙ S. Europe. England. N. Africa. C. G. H.—Peru. Fl. small, deep rose, Feb. and March; fr. April.
3. *gruinum*, Ait. (*DC. l. c.*;—*Roxb. H. B. p.* 49.) ⊙ Candia. N. Africa. Spain. In H. C. G. fl. C. S. (*Roxb.*)

PELARGONIUM, L'Herit. (*DC. pr.* 1, *p.* 649.)

1. *melananthum*, Jacq. (*icon. rar.* 3, *t.* 514;—*DC. pr.* 1, *p.* 653.—Hoarea melanantha, *Swt. ger. t.* 73.) ♃. C. G. H. Introduced in 1841.
2. *astragalifolium*, Pers. (*DC. pr.* 1, *p.* 653.—P. pinnatum, *B. M.* 16, *t.* 579.) ♃. C. G. H. Introduced in 1841.
3. *zonale*, Willd. (*DC. pr.* 1, *p.* 659;—*Roxb. H. B. p.* 49.) ♄ C. G. H. Fl. largish, scarlet, C. S.; fr. H. S.
4. *inquinans*, Ait.? (*DC. pr.* 1, *p.* 659?—*Roxb. H. B. p.* 49;—*J. Grah. Cat. B. pl. p.* 247.) *Scarlet Geranium.* Fl. largish, scarlet, nearly the whole year; fr. C. and H. S.—DC. says, "Folia tacta inquinant colore ferrugineo. Petala chermesina." This does not agree with our plant.
5. *primulinum*, Swt. (*DC. pr.* 1, *p.* 665.—P. crassicaule, *B. M.* 14, *t.* 477;—not L'Herit.) ♄ C. G. H. Introduced in 1841.
6. *peltatum*, Ait. (*DC. pr.* 1, *p.* 666.—Geranium peltatum, *Curt. B. M.* 1, *t.* 20.) ♄ C. G. H.—Fl. large, pale rose, the two upper petals with a deep rose-coloured spot about the middle, March; fr. 0.
7. *cucullatum*, Ait. (*DC. pr.* 1, *p.* 671.) ♄ C. G. H. Has not fl. here, though cultivated for several years.
8. *vitifolium*, Ait. (*DC. pr.* 1, *p.* 674;—*Roxb. H. B. p.* 49.) *Balm-scented Geranium.* ♄ C. G. H. Fl. small, rose-coloured, with the two upper petals dark-purple-streaked, C. S; fr. H. S.
9. *capitatum*, Ait. (*DC. pr.* 1, *p.* 674;—*Roxb. H. B. p.* 49;—*J. Grah. Cat. B. pl. p.* 247.) *Rose-scented Geranium.* ♄ C. G. H. Fl. small, light purple, with the two upper petals striped, C. S.; fr. H. S.
10. *Radula*, L'Herit. (*DC. pr.* 1, *p.* 679.—Geranium Radula, *Cav.*—*B. M.* 3, *t.* 95.) ♄ C. G. H.—Fl. largish, pale rose, the two upper petals with a dark-purple spot about the middle, Feb. and March; fr. 0.
11. *balsameum*, Jacq. (*DC. pr.* 1, *p.* 679.) ♄ C. G. H. Introduced in 1841.

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* *Rhynchotheca integrifolia*, H. B. and Kth. ♄ Quito.—*R. diversifolia*, H. B. and Kth. ♄ Peru.—*Pelargonium glutinosum*, Ait. B. M. 4, t. 143. ♄ C. G. H.—*P. ternatum*, Jacq.; B. M. 12, t. 413. ♄ C. G. H.—*P. glaucum*, L'Herit. (Geranium lanceolatum, B. M. 2, t. 56.) ♄ C. G. H.—*P. bicolor*, Ait.; B. M. 16, t. 201. ♄ C. B. S.—*P. fragrans*, Willd.; Swt. ger. t. 172. ♄ C. G. H.—*P. quinatum*, Curt.; B. M. 15, t. 547. ♄ C. G. H.—*P. cordatum*, Ait. (P. cordifolium, B. M. 5, t. 165.) ♄ C. G. H.—*P. betulinum*, Ait.; B. M. 5, 148. ♄ C. G. H.—*P. pulchellum*, Curt.; B. M. 15, t. 524. ♄ C. G. H.—*P. acetosum*, Ait.; B. M. 3, t. 103. ♄ C. G. H.—*P. tetragonum*, L'Herit.; B. M. 4, t. 136. ♄ C. G. H.—*P. ceratophyllum*, L'Herit.; B. M. 9, t. 315.

♄ C. G. H.—*P. dasycaulon*, Sims.; B. M. 46, t. 2049. ♄ C. G. H. —*P. odoratissimum*, Ait. ♃. C. G. H.—*P. glomeratum*, Jacq. (P. australe, Swt. ger. t. 68.) ♃. N. Holland. Commonly cultivated in the Madras Presidency.

ORDER C.—BALSAMINACEÆ.—Lindl. Nat. Syst. p. 138.

THE BALSAM TRIBE.

Succulent, herbaceous, generally annual plants, sometimes under-shrubby, referred to 2 or 3 genera. Of these DC. pr. mentions; 1 species for Europe; 1 for Siberia; 2 for N. America; 1 for Madagascar; 2 for China; and Harvey, 2 for S. Africa. The rest have all been found in the E. Indies, where, according to our materials, they amount to 74 species of *Impatiens;* and 2 of *Hydrocera.* Several have, however, been found lately in Ceylon, Courtallum, and the Shevagery Hills.—They are eminently alpine plants, luxuriating in moisture and a moderate temperature, especially during the rainy season, and they, therefore, chiefly inhabit mountains and hills from the Himalayas down to Ceylon, and the Malacca Peninsula—Excepting Hydrocera angustifolia, Bl. we are unacquainted with the Javanese forms of the order. (See *Wight. ill.* 1, *p* 156, 160.)

"Chiefly remarkable for the elastic force with which the valves of the fruit separate at maturity, expelling the seeds." (*Lindl.*)

IMPATIENS, L. (*W. and A. pr.* 1, *p.* 135.)

1. *Balsamina*, L. (*W. and. A. l. c.*) দোপাটী *Dopatee.*
   - *α. sylvestris;* (I. Balsamina, *J. Grah. Cat. B. pl. p.* 34.—I. coccinea, *Sims;*—*B. M.* 31, *t.* 1256.—Balsamina coccinea, *DC. pr.* 1, *p.* 685. —B. cornuta, *DC. o. c. p.* 586.—I. cornuta, *L.*—*Burm. zeyl. t.* 16, *f.* 1.) ⊙ Ceylon. Coromandel. Bombay. Banks of the Irawaddi. Bengal, (Serampore.) Fl. large, scarlet; and fr. nearly the whole year.
   - *β. hortensis;* (I. Balsamina, *L.;*—*Lam. ill. t.* 725;—*Roxb. fl. ind.* 1, *p.* 651; *ed. Carey*, 2, *p.* 452.—Balsamina hortensis, *DC. pr.* 1, *p.* 685;—*Rheed.* 9, *t.* 52?—*Rumph.* 5, *t.* 90.) ⊙ Cultivated in gardens. Fl. large, scarlet, crimson, purple, white, variegated; and fr. January, Feb. and H. S.
2. *tripetala*, Roxb. (*fl. ind.* 1, *p.* 651; *ed. Carey.* 2. *p.* 453.—I. ternifolia, *Buch.*) ⊙ Khassya Mountains. Assam. Fl. large, red, tinged with yellow; and fr. the whole year.

HYDROCERA, Bl. (*W. and A. pr.* 1, *p.* 140.)

1. *triflora*, W. and A. (*pr. l. c.*—Impatiens triflora, *L.;*—*DC. pr.* 1, *p.* 687.—I. natans, *Willd.;*—*DC .l. c.;*—*Roxb. fl. ind.* 1, *p.* 652; *ed. Carey*, 2, *p.* 455;—*Burm. zeyl. t.* 16, *f.* 2.) দোমুটী *Domootee.* ⊙ Ceylon. Tanjore. Banks of the Attran River. Bengal, (Serampore.) Fl. large, white, variegated with red and yellow, R. S; fr. C. S.

* *I. mysorensis*, Roth. ⊙ Mysore.—*I. albida*, Wight. ♄ Courtallum.—*I. dasysperma*, Wight. ♃. Courtallum.—*I. trilobata*, Colebr. ⊙ Khassya Mountains.—*I. insignis*, DC. Wall. pl. as. rar. 2, t. 194. ⊙ Mussooree.—*I. bracteata*, Colebr. ⊙ Khassya Mountains.—*I. latifolia*, L. Rheed. 9, t. 48. ⊙ Travancore. The Concans.—*I. Rheedii*, W. and A. Rheed. 9. t. 49. ⊙ The Concans.—*I. fasciculata*, Lam. Rheed. 9, t. 47. The Concans. Khassya Mountains.—*I. fomentosia*, Heyne. ⊙ Peninsula of India. Rangoon.—*I. oppositifolia*, L. ⊙ The Concans.—*I. Kleinii*, W. and A. Rheed. 9, t. 50? 51. ⊙ Travancore. The Concans.—*I. rosmarinifolia*, Retz. ⊙ Peninsula of India. Ceylon.—*I. filiformis*, W. and A. ⊙ Kandalla Ghaut.—*I. ornata*, Nimmo. ⊙ S. Concan.—*I. verticillata*, Wight. ⊙ Shevagerry.—*I. scapiflora*, Heyne ; B. M. 64, t. 2587. ⊙ S. Concan.—*I. modesta*, Wight. ⊙ Shevagerry.—*I. rivalis*, Wight. ⊙ Courtallum.—*I. setacea*, Colebr. ⊙ Khassya Mountains.

SUB-ORDER.—TROPÆOLEÆ, Juss.—Lindl. Nat. Syst. p. 139.

THE NASTURTIUM TRIBE.

Trailing or twining herbs, of 3 genera, and according to DC. pr., B. M. and B. Reg., 16 species, all Natives of Peru, Chili, New Granada, and Brazil.—Properties unimportant.

TROPÆOLUM, L. (*DC. pr.* 1, *p.* 683.) *Nasturtium.*

1. *majus*, L. (*DC. l. c.*;—*B. M.* 1, *t.* 23;—*Roxb. H. B. p.* 32;—*J. Grah. Cat. B. pl. p.* 247.) *Great Indian Cress.* ⊙ Peru. Fl. large, orange, crimson-streaked, fragrant, C. S ; fr. 0.—Fleshy fruit acrid, possessing the properties of Cress.

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* *T. minus*, L. ; B. M. 3, t. 98. ⊙ Peru.—*T. aduncum*, Sm. ; B. Reg. 9, t. 718. (T. peregrinum, B. M. 33, t. 1351.) ⊙ Peru, Mexico.—*T. pentaphyllum*, Lam. ; B. Reg. 18, t. 1547 ; B. M. 59, t. 3190. ♃. Buenos Ayres.—*T. Moritzianum*, Klotzch. ; B. M. 67, t. 3844. ⊙ Cumana.—*Magallana aparrifolia*, Cav. ⊙ S. America. Tuberous roots, in excellent condition, of Tropæolum tricolor, Swt. ; and tuberosum, Ruiz. and Pav.; have been tried here, but without success.

ORDER CI.—OXALIDACEÆ.—Lindl. Nat. Syst. p. 140.

THE WOODSORREL TRIBE.

Herbs, under-shrubs, rarely trees, by Lindl. referred to 5 genera. Of these, DC. pr. and Spreng. syst. enumerate about 100 species for S. America ; 5 for N. America ; 2 for Europe ; 1 for Iberia ; 1 for Bourbon ;

2 for New Holland; 1 for Terra del Fuego; and 1 for the Falkland Islands. S. Africa is inhabited by 110 species, (*Harvey.*) In the E. Indies have only been found 2 forms of *Averrhoa;* (Moluccas, Peninsulas of India, Bengal, Assam, &c.) 2—4 of *Biophytum;* (All India, but especially Courtallum, the Neelgherries, Ceylon, and Monghir,) and 1 of *Oxalis,* which is a native of most parts of the world.

" Acidity is the predominating characteristic of this order. " Averrhoa Bilimbi and the pinnated Oxalis called Biophytum have sensitive leaves. Their foliage is generally acid, so that they are fit to supply the place of sorrel.—Oxalis Acetosella, (Common Woodsorrel,) contains pure oxalic acid." (*Lindl.*)

AVERRHOA, L. (*DC. pr.* 1, *p.* 689;—*W. and A. pr.* 1, *p.* 141.)

1. *Carambola,* L. (*DC. l. c.;—W. and A. l. c.;—Roxb. fl. ind.* 2, *p.* 450;—*J. Grah. Cat. B. pl. p.* 34;—*Rheed.* 3, *t.* 43, 44;—*Rumph.* 1, *t.* 35.) 5 Moluccas. Cultivated. Fl. small, purplish-red, H. and R. S.; fl. C. S.

   α. acida; কর্ম্মরঙ্গ *Kumurunga.* Ripe fruit cooling, used in fevers.

   β. dulcis; মিঠা কামরঙ্গা *Mita-Kamrunga.* Ripe fruit sweet.

2. *Bilimbi,* L. (*DC. pr.* 1, *p.* 689;—*W. and A. pr.* 1, *p.* 142;—*Roxb. fl. ind.* 2, *p.* 451;—*J. Grah. Cat. B. pl. p.* 34;—*Rheed.* 3, *t.* 45, 46;—*Rumph.* 1, *t.* 36.) বিলিম্বি *Bilimbi.* 5 Moluccas. Cultivated. Fl. small, reddish-brown, H. S.; fr. R. S. Fruit pickled, or preserved with sugar.

BIOPHYTUM, DC. (*pr.* 1, *p.* 689.)

1. *sensitivum,* DC. (*o. c. p.* 690;—*Wight. ill.* 1, *t.* 69, *f.* 9.—Oxalis sensitiva, *L.;—W. and A. pr.* 1, *p.* 142;—*Roxb. fl. ind.* 2, *p.* 457;—*J. Grah. Cat. B. pl. p.* 35;—*Rheed.* 9, *t.* 19;—*Rumph.* 5, *t.* 104, *f.* 2.) বন নারাঙ্গা *Bun-naranga.* ⊙ Moluccas. Both Peninsulas of India, Bengal, (Serampore.) Fl. smallish, yellow; and fr. C. S.

OXALIS, L. (*DC. pr.* 1, *p.* 690;—*W. and A. pr.* 1, *p.* 142.)

1. *corniculata,* L. (*DC. pr.* 1, *p.* 692;—*W. and A. l. c.;—Roxb. fl. ind.* 2, *p.* 457;—*J. Grah. Cat. B. pl. p.* 35;—*E. B.* 24, *t.* 1726;—*Wight. icon.* 1, *t.* 18.—O. pusilla, *Salisb.;—Roxb. l. c.* excl. No. 2.) আমরুল *Amrool.* ⊙ Europe. N. America. Mexico. African Islands, Japan. India, from Ceylon to the foot of the Himalaya. Fl. small, yellow; and fr. nearly the whole year.
2. *rosacea,* Jacq. (*DC. pr.* 1, *p.* 694;—*B. M.* 41, *t.* 1698.) ♃. C. G. H. Introduced in 1841.
3. *tetraphylla,* Cav. (*DC. pr.* 1, *p.* 695;—*Spreng. syst.* 2, *p.* 431.) ♃. Mexico. Fl. largish, lilac-purplish, May; fr. 0.
4. *violacea,* L. (*DC. pr.* 1, *p.* 695;—*B. M.* 48, *t.* 2215;—*Roxb. H. B. p.* 35.) ♃. N. America. Fl. largish, violet, C. S; fr. 0.
5. *cernua,* Thunb. (*DC. pr.* 1, *p.* 696;—O. caprina, *B. M.* 7, *t.* 237; *Roxb. H. B. p.* 34.) ♃. C. G. H. Fl. largish, lemon-coloured, Jan., Feb. and March; fr. 0.

6. *variabilis*, Jacq. (*Lindl.*; *B. Reg.* 18, *t.* 1505.) ♃. C. G. H.—Fl. largish, Jan. Feb. and March; fr. 0.
   α. albiflora; (*B. Reg. l. c.*;—*B. M.* 41, *t.* 1683.) Fl. white, with an orange eye.
   β. rosea; (*B. Reg. l. c.*;—*B. M.* 41, *t.* 1712.) Fl. deep rose, with an orange eye.
7. *Bowiei*, Herb. (*B. Reg.* 19, *t.* 1585.) ♃. C. G. H.—Fl. very large, deep rose-coloured, R. S. C. and fr. 0.
8. *Deppii*, B. Cab. (16, *t.* 1500.) ♃. Mexico 1833.
9. *floribunda*, Lehmann. ♃. Brazil, C. S.

O. hirta, L.; *incarnata*, L.; *convexula*, Jacq.; *Acetosella*, L.; *versicolor*, L.; *and flava*, L; have been cultivated here for many years without fl.

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* *O. bipunctata*, Grah.; B. M. 54, t. 2781. ♃. Rio Janeiro.—*O. tenera*, Spreng; B. Reg. 13, t. 1046. ♃. Brazil.—*O. divergens*, Benth.; B. Reg. 19, t. 1620. ♃. Mexico.—*O. Barrelieri*, Jacq; B. M. 66. t. 3748. ♄ Brazil.—*O. Plumieri*, Jacq.; B. Reg. 10, t. 810. ♄ S. America.—*O. fruticosa*, Rad.; ♄ Rio Janeiro.—*O. Dillenii*, Jacq; ⊙ Guadeloupe.—*O. floribunda*, Lehm.; B. Reg. 13, t. 1123. ♃. S. America.—*O. palustris*, St. Hil. ♃. Brazil.—*O. stricta*, L.; Fl. dan. t. 873. ⊙ N. America. Europe.—*O. albicans*, H. B. and Kth. ♃. Mexico.—*O. debilis*, H. B. and Kth. ♃. Caraccas.—*O. Jacquiniana*, H. B. and Kth. ♃. Mexico.—*Biophytum Candollianum*, Wight. ill. 1, t. 62. and f. 8. ⊙ Courtallum.—*B. proliferum*, Wight. ⊙ Ceylon.—*B. intermedium*, Wight. ⊙ Ceylon.—*B. polyphyllum*, Munro. ⊙ Neelgherries.—*B. verticillatum*, Wight. ⊙ Courtallum.—*Ledocarpum pedunculare*, Lindl.; B. Reg. 17, t. 1392. ♄ Chili. A very beautiful plant.

ORDER CII.—CORIARIACEÆ.—Lindl. Nat. Syst. p. 141.

Shrubs of 2 genera; one (Coriaria) containing, according to DC. pr., 7 species: 1 from Europe and N. Africa; 4 from Peru; 1 from Mexico; and 1 from New Zealand. The other genus, Ercilla, Ad. Juss. we are not acquainted with. The E. Indies exhibit but one species.

"Coriaria myrtifolia is used by dyers for staining black. Its fruit is poisonous. (*DC.*) Its leaves have been used to adulterate Senna, and have produced fatal consequences." (*Fee. Lindl.*)

CORIARIA, L. (*DC. pr.* 1, *p.* 739.)

1. *nepalensis*, Wall. (*pl. as. rar.* 3, *t.* 289.) ♄ Mountains near Deyra Dhoon, Kemaon, Mussooree. alt. 5-7000 f. Has been cultivated

here for more than fourteen years, without fl. Fruit eaten in the hills. (*Royle.*)

* *C. atropurpurea,* Moç. and Sessé. 5 Mexico.

ORDER CIII.—SURIANACEÆ.—Lindl. Nat. Syst. p. 142.

The only true species of this order is

* *Suriana maritima,* L. ♄ Sea-coasts of India.—Properties unknown.

ORDER CIV.—LIMNANTHACEÆ.—Lindl. Nat. Syst. p. 142.

The only species of this order, besides Flörkea palustris, *Nutt.* a N. American plant, is

* *Limnanthes Douglassii,* R. Br.; B. Reg. 20, t. 1673. ⊙ California.

ORDER CV.—ROSACEÆ.—Lindl. Nat. Syst. p. 143.

THE ROSE TRIBE.

Herbs or shrubs, excluding Rhinanthera, and adding Hotelia, by Lindl. referred to 35 genera. Of these, DC. pr. and Spreng. syst. assign about 154 species for Europe; 100 for N. America; 44 for Siberia; 30 for S. America, Mexico and the W. Indies; 30 for China and Japan; 12 for Tauria and Caucasus; 9 for the Levant; 8 for Dahuria; 5 for Greenland; 5 for the Straits of Magellan; 4 for Bourbon and Mauritius; 3 for New Holland and the Society Islands; 3 for Java; 3 for Melville Island; 2 for Persia; 1 for Iberia; 2 for Abyssinia; 1 for St. Helena; 1 for Luzon; and 1 for Terra Nova Island.—In S. Africa have been found 1 Geum; 1 Potentilla; 1 Agrimonia, and several species of Rubus, (*Harvey.*)—According to our materials, which, in general, do not touch Java, 117 Rosaceæ inhabit the E. Indies; viz. of *Rosa,* 12 (Nepal; a few from the Khassya Mountains, the Neelgherries and the banks of the Irrawaddy); of *Rubus* 38, (Himalayas, Khassya Mountains, Neelgherries, Moluccas); of *Dalibarda* 1, (Nepal); of *Fragaria* 4, (Gosain Than. Deyra Dhoon. Oude. Java. Penang); of *Potentilla* 38; (Nepal. Khassya Mountains. Neelgherries. and 1 Ceylonese; 3 also common to Siberia, *P. cataclines, multifida and bifurca*); of *Sibbaldia* 2; (Himalayas, 1 of them, *S. procumbens,* L. also a

native of Europe and Siberia); of *Geum* 3, (Himalayas); of *Sieversia* 1, (Himalayas); of *Agrimonia* 2; (one Nepal; the other, a variety of A. Eupatorium, Ceylon); of *Spiræa* 11; (Himalayas. Two of them common to Kamtschatka and Japan); of *Hotelia* 1, (Himalayas, Japan); of *Schizonotus* 1, (Himalayas); and of *Neillia* 3, (Nepal, Khassya Mountains.)

"No Rosaceous plants are unwholesome; they are chiefly remarkable for the presence of an astringent principle, which has caused some of them to be reckoned febrifuges.—One of the most powerful anthelmintics in the world, an Abyssinian plant, known to botanists by the name of Brayera anthelminthica, *Kth.* belongs to this family. Upon the authority of Brayer, after whom is it named, two or three doses of the infusion are sufficient to cure the most obstinate cases of tænia." (*Lindl.*)

Rosa, L. (*DC. pr.* 2, *p.* 597;—*W. and pr.* 1, *p.* 301.)

1. *involucrata*, Roxb. (*fl. ind.* 2, *p.* 513;—*DC. pr.* 2, *p.* 602;—*B. Reg.* 6, *t.* 739;—*Wight. icon.* 1, *t.* 234.) ♄ ◡ Kemaon. Silhet. Soonderbuns. Fl. large, white, fragrant, C. S; fr. H. S.
2. *carolina*, L. (*DC. pr.* 2, *p.* 605.) ♄ N. America. In H. C. G. Fl.?
3. *damascena*, Mill. (*DC. pr.* 2, *p.* 620;—*J. Grah. Cat. B. pl. p.* 65.) *Damascus Rose.* ♄ Syria. Fl. large, fragrant rose, C. S. but seldom. The petals yield a highly fragrant essential oil, called Atter of Roses.
4. *centifolia*, L. (*DC. pr.* 2, *p.* 619;—*Roxb. fl. ind.* 2, *p.* 513.) *Provence Rose.* সরাবই গোলাব *Busuraï-golab.* ♄ S. Europe, fl. large, double rose, fragrant, Feb. and H. S.

   β. *muscosa*, Ser. (*DC. l. c.*;—*B. M.* 63, *t.* 3475.—Rosa muscosa, *Mill.*;—*B. M.* 2, *t.* 69.) *Moss Rose.* ♄ France. Introduced in 1841.
5. *rubiginosa*, L. (*DC. pr.* 2, *p.* 617.)

   β. *micrantha*, Lindl. (R. micrantha, *Sm.*;—*E. B.* 35, *t.* 2490.) *Small flowered Sweet Briar.* ♄ England. Fl. small, pale rose, H. S.; fr. 0.
6. *canina*, L. (*DC. pr.* 2, *p.* 613.)

   β. *Bourboniana*, Red. ♄ France.Rose de (In H. C. G. Fl.? Bourbon.)
7. *indica*, L. (*DC. pr.* 2, *p.* 600. α. vulgaris;—*B. Reg.* 10, *t.* 804;—*J. Grah. Cat. B. pl. p.* 65.—R. chinensis, *Roxb. fl. ind.* 2, *p.* 513.) কাঠ গোলাব *Kanta-golab.* ♄ Forests of Nepal. China. Fl. largish, rose, half double, C. S.; Feb. and March; fr. H. S.
8. *semperflorens*, Curt. (*B. M.* 8, *t.* 284;—*Roxb. fl. ind.* 2, *p.* 514.—R. indica, *L.*—V. semperflorens, *Ser.*; *DC. pr.* 2, *p.* 601.) ♄ China. Fl. large, deep red, the whole year.
9. *microphylla*, Roxb. (*fl. ind.* 2, *p.* 515;—*DC. pr.* 2, *p.* 602;—*B. Reg.* 11, *t.* 119;—*B. M.* 63, *t.* 3490;—*J. Grah. Cat. B. pl. p.* 65.) ♄ China. Fl. double, large, pale rose, C. S.
10. *multiflora*, Thunb. (*DC. pr.* 2, *p.* 598.)

    γ. *carnea*; (*DC. l. c.*;—*B. Reg.* 5. *t.* 425;—*B. M.* 26, *t.* 1059.—R. multiflora, *J. Grah. Cat. B. pl. p.* 65.) ♄ ◡ Japan, China. Fl. double, smallish, rose, C. S.

11. *moschata*, Mill. (*DC. pr.* 2, *p.* 598.)
β. *nepalensis*, Lindl. (*B. Reg.* 10, *t.* 829.—R. glandulifera, *Roxb. fl. ind.* 2, *p.* 514;—*J. Grah. Cat. B. pl. p.* 65.) সিঁউতী *Siootee.* ♄ ◡ Deyra Dhoon, Sirmore. Fl. largish, double, white, fragrant, C. S.
12. *sinica*, Ait. (*B. M.* 55, *t.* 2847;—*B. Reg.* 23, *t.* 1922;—*J. Grah. Cat. B. pl. p.* 65.—R. nivea, *DC. pr.* 2, *p.* 599.—R. ternata, *Poir.*—R. triphylla, *Roxb. fl. ind.* 2, *p.* 515,) ♄ China. Fl. very large, single, white, C. S.
13. *Banksiæ*, R. Br. (*DC. pr.* 2, *p.* 601.) *Lady Banks' Rose.* ♄ ◡ China. Fl. small, double, C. S.
β. *albo-plena*; (*B. M.* 45, *t.* 1954;—*B. Reg.* 5, *t.* 397.—R. inermis, *Roxb. fl. ind.* 2, *p.* 516. ex. pte.) Fl. white.
γ. *luteo-plena*; (*B. Reg.* 13, *t.* 1105.—R. inermis, *Roxb. l. c. ex. pte.*) Fl. pale yellowish.

RUBUS, L. (DC. *pr.* 2, *p.* 556;—*W. and A. pr.* 1, *p.* 298.)

1. *rosæfolius*, Sm. (*DC. l. c.*)
β. *coronarius*, Sims. (*B. M.* 43, *t.* 1783.—R. rosæfolius, *Roxb. fl. ind.* 2, *p.* 518.) ♄ Mauritius. Fl. large, double, white, C. S.
2. *gracilis*, Roxb. (*fl. ind.* 2, *p.* 519;—*DC. pr.* 2, *p.* 557.) ♄ Nepal. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)
3. *Gowreephul*, Roxb. (*fl. ind.* 2, *p.* 517;—*W. and A. pr.* 1, *p.* 298;—*Wight icon.* 1, *t.* 231.) গৌরীফল *Gowreephul.* ♄ Neelgherries. Ceylon. Khassya Mountains. Assam. Kemaon. Taong Dong. Fl. small, white, Feb. and March.
4. *Wallichianus*, W. and A. (*pr.* 1, *p.* 298;—*Wight icon.* 1, *t.* 230.—R. hirtus, *Roxb. fl. ind.* 2, *p.* 518; not Kit.) ♄ ◡ Mountains of the Peninsula of India. In H. C. G. fl. C. S. (*Roxb.*)
5. *lasiocarpus*, Sm. (*DC. pr.* 2, *p.* 558;—*W. and A. pr.* 1, *p.* 699;—*Wight icon.* 1, *t.* 232;—*J. Grah. Cat. B. pl. p.* 64.—R. albescens and racemosus, *Roxb. fl. ind.* 2, *p.* 519.—R. mysorensis, *Heyne*;—*DC. o. c. p.* 557.) *Country Raspberry.* ♄ ◡ Neelgherries. Dindygul and Cunnawady Hills. Mysore. Deyra-Dhoon. Fl. small, red, C. S.; fr. H. S.
6. *Roxburghianus*, Wall. (*Cat.*—R. paniculatus, *Roxb. fl. ind.* 2, *p.* 518; not. Sm.) ♄ Moluccas. In H. C. G. fl.; and fr. R. and C. S.
7. *ellipticus*, Sm. (*DC. pr.* 2, *p.* 563.) ♄ Nepal. In H. C. G. Fl.?
8. *rugosus*, Sm. (*DC. pr.* 2, *p.* 567.)—*W. and A. pr.* 1, *p.* 299;—*Wall. pl. as. rar.* 3, *t.* 234;—*Wight. icon.* 1, *t.* 225;—*J. Grah. Cat. B. pl. p.* 64.—R. alceæfolius, *Poir*;—*DC. l. c.*—R. reflexus, *Ker.*;—*B. Reg.* 6, *t.* 461;—*DC. o. c. p.* 566.—R. Hamiltonianus, *Ser*;—*DC. l. c.*—R. moluccanus, *Roxb. fl. ind.* 2, *p.* 518; not L.) ♄ ◡ Neelgherries. In a ravine near Mahableshwur Village. Penang. Khassya Mountains. Assam. Nepal. Fl. small, white, C. S.; fr. H. S.
9. *hexagynus*, Roxb. (*fl. ind.* 2, *p.* 516;—*W. and A. pr.* 1, *p.* 299.—R. indicus, *Lesch.*;—*DC. pr.* 2, *p.* 568.) ♄ Peninsula of India. Khassya Mountains. Fl. small, white, C. S.; fr. H. S.

FRAGARIA, L. (*DC. pr.* 2, *p.* 569;—*W. and A. pr.* 1, *p.* 299.) *Strawberry.*

1. *vesca*, L. (*DC. l. c.*) ♃. Europe. Fl. smallish, white; and fr. C. S.
   α. sylvestris, L. (*E. B.* 22, *t.* 1524.) *Wood-strawberry.*
   β. hortensis, Duch. (F. vesca, *Roxb. H. B. p.* 39.)—Cultivated.
2. *elatior*, Ehrh. (*DC. pr.* 2, *p.* 570;—*W. and A. pr.* 1, *p.* 300;—*E. B.* 31, *t.* 2197.) *Hautboy-strawberry.* ♃. America. Europe?—Fl. large, white; and fr. C. S.
3. *chilensis*, Ehrh. (*DC. pr.* 2, *p.* 571.) *Chili strawberry.* ♃. S. America. Fl. large, white; and fr. C. S.
4. *indica*, Andr. (*B. Repos.* 8, *t.* 475;—*DC. pr.* 2, *p.* 571;—*B. Reg.* 1, *t.* 61;—*W. and A. pr.* 1, *p.* 300.—F. malayana, *Roxb. fl. ind.* 2, *p.* 520.—Duchesnea fragarioides, *Sm.*—D. fragiformis, *Don.*—Potentilla Wallichiana, *Ser.*;—*DC. pr.* 2, *p.* 574.) ♃ Penang. Neelgherries. Deyra Dhoon. Kemaon. Fl. small, yellow; and fr. the whole year.
5. *Roxburghii*, W. and A. (*pr.* 1, *p.* 300, *annot.*—F. indica, *Roxb. fl. ind.* 2, *p.* 520; not Andr.;) ♃. Khassya Mountains. Assam. In H. C. G. fl. and fr. C. S. (*Roxb.*)

POTENTILLA, L. (*DC. pr.* 2, *p.* 571;—*W. and A. pr.* 1, *p.* 300.) *Cinqfoil.*

1. *reptans*, L. (*DC. o. c. p.* 574;—*E. B.* 12, *t.* 862.) ♃. Europe. Asia. Fl. largish, yellow, C. S. fr. 0.
2. *argentea*, L. (*DC. pr.* 2, *p.* 576;—*E. B.* 2, *t.* 89.) ♃. Europe. Fl. small, yellow, Jan. and Feb.; fr. 0.
3. *micropetala*, Don. (*DC. pr.* 2, *p.* 583.—Comarum flavum, *Buch.*;—*Roxb. fl. ind.* 2, *p.* 521.) ⊙ Nepal, Gossain Than. Fl. small, yellow, Feb.; fr. 0.
4. *rupestris*, L. (*DC. pr.* 2, *p.* 583;—*E. B.* 20, *t.* 2058.) ♃. Europe. Siberia. Introduced in 1841.

P. verna, L.; *opaca*, L.; *aurea*, L.; *pedata*, Willd.; *recta*, L.; *astracanica*, Jacq.; and *anserina*, L.; have been cultivated in the garden here for many years, but without fl.

GEUM, L. (*DC. pr.* 2, *p.* 550.) *Avens.*

1. *chilense*, Balbis. (*DC. pr.* 2, *p.* 551, *annot.* under G. coccineum;—*B. Reg.* 16, *t.* 1348, as to spec. char. and syn.—G. coccineum, *DC. pr.* 2, *p.* 551, excl. fl. gr. and habitat;—*B. Reg.* 13, *t.* 1088; excl. fl. gr. and Spreng.) ♃. Chili. Fl. large, scarlet, R. S., but only once; fr. 0.
2. *rivale*, L. (*DC. pr.* 2, *p.* 551;—*E. B.* 2, *t.* 106.) ♃. Europe. America. Fl. middle-sized, yellow, with a purplish calyx, R. S. but rare; fr. 0.

G. urbanum, L.; cultivated for many years with the two preceding, has not fl.

AGRIMONIA, L. (*DC. pr.* 2, *p.* 587.) *Agrimony.*

1. *nepalensis*, Don. (*DC. l. c.*) ♃. Nepal. Fl. small, yellow, June and July; fr. 0.

A. Eupatorium, L.; the common English Agrimony, has not fl.

KERIA, DC. (*pr.* 2, *p.* 541.)

1. *japonica*, DC. (*l. c.*—Rubus japonicus, *L.*—Corchorus japonicus, *Thunb.*—Spiræa japonica, *Lamb.*) ♄ Japan. Fl. yellow, largish; fr. 0. β. *plena*; (Corchorus japonicus, *Thunb*;—*B. Repos.* 2, *t.* 587;—*B. M.* 32, *t.* 1296.) Fl. the whole year.

SPIRÆA, L. (*DC. pr.* 2, *p.* 541.)

1. *Roxburghiana*, Wall. MSS. (S. corymbosa, *Roxb. fl. ind.* 2, *p.* 512; not Rafin.) ♄ China. Nepal. Fl. small, white, H. and R. S.; fr. 0.
2. *Filipendula*, L. (*DC. pr.* 2, *p.* 546;—*E. B.* 4, *t.* 284.) ♃. Europe. Introduced in 1841.

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* *Rosa bracteata*, Wendl. β. *scabricaulis*, Lindl.; B. M. 34, t. 1377. ♄ China.—*R. sulphurea*, Ait.; B. Reg. 1, t. 46. ♄ Levant.—*R. Eglanteria*, L. (R. lutea unicolor, B. M. 11, t. 363.) ♄ Native place unknown.—β *luteola*, Thor. (R. hispida, B. M. 13, t. 1570.)—*R. gallica*, L.; B. Reg. 6, t. 448. ♄ S. Europe.—*R. alba*, L.; fl. dan. t. 1215. ♄ Crimea.—*R. Montezumæ*, Humb. ♄ Mexico.—*R. Lawrenceana*, Swt. (R. semperflorens, γ minima, B. M. 42, t. 1762.) ♄ China.—*R. microcarpa*, Thunb. ♄ China.—*R. macrophylla*, Lindl.; Wall. pl. as. rar. 2, t. 117. ♄ Himalaya.—*R. sericea*, Lindl.; Royle. t. 42, f. 1. ♄ Kemaon.—*R. Lyellii*, Lindl. ♄ Oude.—*Lowea berberifolia*, Lindl.; B. Reg. 15, t. 1261. ♄ Persia.—*Rubus. moluccanus*, L.; Rumph. 5, t, 47, f. 2. Tavoy. Moluccas.—*R. paniculatus*, Sm. Nepal.—*R. pauciflorus*, Wall.; B. Reg. 10, t. 854, Nepal.—*R. jamaicensis*, L. ♄ Jamaica.—*R. parvifolius*, L.; B. R. 6, t. 496. ♄ China. Nepal.—*Fragaria monophylla*, Duch.; B. M. 2, t. 63. ♃.—*F. grandiflora*, Ehrh. ♃. Surinam.—*F. bonariensis*, Juss. ♃. Buenos Ayres.—*Potentilla candicans*, Humb. ♃. Mexico.—*P. linearilobα*, M. and S. ♃. Mexico.—*Spiræa callosa*, Thunb. (S. bella, Sims.; B. M. 50, t. 2426. ♄ Nepal.—*Schizonotus Lindleyanus*, Lindl. (Spiræa Lindleyana, Wall.) Kamaon. Sirmore.—*Geum Roylei*, Wall. Choor Mountain.—*Brayera anthelmintica*, Kth. Abyssinia.—*Keria japonica*, DC.; α. *simplex*.—*Lindleya mespiloïdes*, Kth. ♄ Mexico.—*Neillia thyrsiflora*, Don. Nepal.—*N. rubiflora*, Don. *Nepal.*

SUB-ORDER.—POMEÆ, Lindl. Nat. Syst. p. 145.

THE APPLE TRIBE.

Trees and shrubs, referred (including Hesperomeles and Stranvæsia) by Lindley to 13 genera. Of these, according to DC. pr. and B. Reg., about 30 species have been found in Europe; 30 in N. America; 12 in China and Japan; 7 in S. America and Mexico; 5 in Siberia; 5 in the

Levant; 3 in N. Africa; 2 in Tauria and Caucasus; 2 in Persia; 1 about Astrachan; 1 in Madeira; and 1 in the Sandwich Islands. In the E. Indies, excluding Java, 29 species have been discovered, viz. 1 of *Cratægus;* (Nepal.) 1 of *Stranvæsia;* (Nepal.) 1 of *Rhaphiolepis;* (China; scarcely found in India,) 6 of *Photinia;* (Nepal. Khassya Mountains, Neelgherries,) 1 of *Eriobotrya;* (Nepal,) 8 of *Cotoneaster;* (Nepal, 1 from the Neelgherries,) 10 of *Pyrus;* (Himalayas, Khassya Mountains, Taong-Dong, Assam.) and 1 of *Cydonia,* (Nepal.) Cydonia vulgaris, Pers. is only cultivated in Hindoosthan.

"The fruit is an article of food, and the flowers for their beauty, are the chief peculiarities of this order, which consists exclusively of trees and bushes, without any herbaceous plant." (*Lindl.*)

Cratægus, L. (*DC. pr.* 2, *p.* 626.)

1. *crenulata,* Roxb. (*fl. ind.* 2, *p.* 509;—*DC. l. c.*) ♄ Nepal, Kemaon. Fl. largish, white, April and May; fr. Aug.

Rhaphiolepis, Lindl. (*DC. pr.* 2, *p.* 630;—*Lindl. B. Reg.* under *t.* 1956.

1. *indica,* Lindl. (*DC. l. c.*—Cratægus indica, L.? *B. M.* 42, *t.* 1726; —*Roxb. H. B. p.* 38.) ♄ China. Fl. small, white, March and April; fr. 0.

Photinia, Lindl. (*DC. pr.* 2, *p.* 631;—*W. and A. pr.* 1, *p.* 302;—*Lindl. B. Beg.* under *t.* 1956.)

1. *bengalensis,* Wall. (P.? dubia, *Lindl.;—DC. l. c.*—Mespilus bengalensis, *Roxb. fl. ind.* 2, *p.* 510.) L. 5 Chittagong. Assam. Khassya Mountains. Nepal. Fl. small, white, Dec. and Jan.; fr. June and July. Bark used in Nepal for dyeing scarlet. (*DC.*)
2. *eugenifolia,* Lindl. (*B. Reg.* under *t.* 1956.) ♄ Khassya Mountains. Fl. small, white, R. S.

Eriobotrya, Lindl. (*DC. pr.* 2, *p.* 631;—*W. and A. pr.* 1, *p.* 302;—*Lindl. B. Reg.* under *t.* 1956.)

1. *japonica,* Lindl. (*DC. l. c.;—W. and A. l. c.;—B. Reg.* 5, *t.* 365; —*Wight. icon.* 1, *t.* 226;—*J. Grah. Cat. B. pl. p.* 65.—Mespilus japonica, *Thunb.;—Roxb. fl. ind.* 2, *p.* 510.) *Loquat.* 5 Japan, China. Cultivated in gardens. Fl. smallish, white, fragrant, R. S.; fr. Dec. Jan. Feb. and March.

Cotoneaster, Medik. (*DC. pr.* 2, *p.* 632.)

1. *affine,* Lindl. (*DC. l. c.*) ♄ Nepal, Shreenagur. Has not fl. here, though cultivated for many years.
2. *obovatum,* Wall. Nepal.

Pyrus, L. (*DC. pr.* 2, *p.* 633.)

1. *communis,* L. (*DC. l. c.;—E. B.* 25, *t.* 1784.) *Wild pear-tree.* Europe. γ. *sativa,* (*Roxb. fl. ind.* 2, *p.* 510.) *Cultivated pear-tree.* Fl. large, white, fragrant, Feb. and March; fr. 0.
2. *sinensis, Lindl.* (*B. Reg.* 15, *t.* 1248.—P. chinensis, *Roxb. fl. ind.* 2, *p.* 511.) *Sandy Pear. China Pear.* ♄ China. In H. C. G. Fl? Introduced there before 1794, but had not fl. up to 1814.

3. *Malus*, L. (*DC. pr.* 2, *p.* 635 ;—*Roxb. fl. ind.* 2, *p.* 511 ;—*J. Grah. Cat. B. pl. p.* 66.) *Apple Tree.* ♄ Europe. Persia. Assam, &c. Fl. large, reddish white, fragrant, Feb. and March ; fr. 0.
4. *spectabilis*, Ait. (*DC. pr.* 2, *p.* 635 ;—*B. M.* 8, *t.* 267 ;—*Roxb. H. B. p.* 38.) ♄ China. Fl. large, deep rose, afterwards pale rose. Introduced into H. C. G. in 1812. Fl. ?
5. *indica*, Roxb. (*fl. ind.* 2, *p.* 511 ;—*Wall. pl. as rar.* 2, *t.* 173.) ♄ Khassya Mountains. Has not fl. here, though cultivated for more than ten years.
6. *lanuginosa*, Wall. Nepal.

Cydonia, Tournef. (*DC. pr.* 2, *p.* 638.)

1. *vulgaris*, Pers. (*DC. l. c.*—Pyrus Cydonia, *L. ;—Jacq. austr. t.* 342 ; —*Roxb. fl. ind.* 2, *p.* 511 ;—*J. Grah. Cat. B. pl. p.* 66.—P. tomentosa, *Roxb. o. c. p.* 512; not DC.) *Common Quince Tree.* ♄ Rocky places and hedges of S. Europe, Hindoosthan ? Introduced into H. C. G. in 1794, but had not fl. up to 1814.
2. *japonica*, Pers. (*DC. pr.* 2, *p.* 638.—Pyrus japonica, *Thunb. ;—B. M.* 18, *t.* 692 ;—*Roxb. H. B. p.* 38.) *Japan Quince Tree.* ♄ Fl. large crimson. In H. C. G. fl. H. S. (*Roxb.*)

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* *Stranvæsia glaucescens*, Lindl. ; B. Reg. 23, t. 1956. ♄ Nepal, Kamaon. —*Rhaphiolepis Phœostemon*, Lindl ; (Rhaphiolepis indica, B. Reg. 6, t. 468, not Lindl). ♄ China.—*R. rubra*, Lindl. ; B. Reg. 17, t. 1400. ♄ China.—*R. salicifolia*, Lindl. ; B. Reg. 8, t. 652. ♄ China.—*Chamæmeles coriacea*, Lindl. ♄ Madeira.—*Photinia serrulata*, Lindl. (Cratægus glabra, Thunb. ; B. M. 47, t. 2105.) ♄ Japan, China.—*P. pustulata*, Lindl. Canton.—*P. integrifolia*, Lindl. Nepal.—*P. Lindleyana*, W. and A. ; Wight. icon. 1, t. 228. ♄ Neelgherries.—*P. Notoniana*, Wall. Wight. ill. 1, t. 85. ♄ Neelgherries.—*Eriobotrya elliptica*, Lindl. Nepal. ♄.—*Osteomeles anthyllidifolia*, Lindl. ♄ Sandwich Islands.—*Pyrus crenata*, Don. ; B. Reg. 20, t. 1655. ♄ Nepal.—*P. baccata*, L. ♄ Kamaon.—*P. foliolosa*, Wall. pl. as. rar. 2, t. 189. ♄ Nepal.—*Cydonia sinensis*, Thouin. ; B. Reg. 11, t. 905. ♄ China.

SUB-ORDER.—AMYGDALEÆ, Lindl. Nat. Syst. p. 146.

THE ALMOND TRIBE.

Trees or shrubs, by Lindl. referred to 6 genera. Of these, DC. pr. assigns about 16 to N. America ; 14 to Europe ; 7 to S. America, Mexico and the W. Indies ; 7 to Japan ; 3 to the Levant ; 1 to Siberia ; 1 to Kalmukia ; 1 to Caucasus ; 1 to Arabia ; 1 to Persia ; 1 to China ; and 1 to N. Africa. In the E. Indies, (mostly exclusive of Java) have been dis-

covered 20 species: 1 of *Prunus;* (P. bokharensis, Royl.) 12 of *Cerasus;* (Nepal, one a native of Moulmein, another also common to China.); 3 of *Amygdalus;* (Kemaon. Cochin-China. One [Persica saligna, Royl.,] a native of the Bissehur district.) 3 of *Polyodontia;* (1 Javanese; 2 Ceylonese,) and 1 of *Pygeum,* (Khassya Mountains.)

The kernels and leaves of several species, f. ex. Cerasus capricida, C. virginiana, C. Laurocerasus, &c., contain the deadly prussic acid, but the fruit is in many instances delicious, f. ex. peaches, nectarines, cherries, plums, apricots, almonds. The leaves of the sloe (Prunus spinosa) have been employed as a substitute for tea, and are still used in Europe for adulterating the black tea of China. *Kirshengeist* (l'eau de cerises) is a spirit prepared from the kernels of a variety of Cerasus avium in the Vosges, the Black Forest, and Switzerland. The well known liqueur, *Noyau,* is flavoured by the kernels of Cerasus occidentalis, and the *Maraskino,* it is said by those of C. Mahaleb.

PRUNUS, L. (*DC. pr.* 2, *p.* 532.)

1. *domestica,* L. (*DC. o. c. p.* 533;—*E. B.* 25, *t.* 1783.) *Common Plum-Tree.* ♄ S. Europe. England. Fl. small, white, Febr.; fr. 0, or rare and sour.

CERASUS, Juss. (*DC. pr.* 2, *p.* 535.) *Cherry.*

1. *Puddum,* Wall. (*pl. as. rar.* 2, *t.* 143;—*DC. o. c. p.* 537.)—Prunus Puddum, *Roxb. MSS.*—P. sylvatica, *Roxb. fl. ind. p.* 501.) ♄ Deyra Dhoon. Sirmore. Mountains of Hindoosthan. Has not fl. here.
2. *triflora,* Wall. (Prunus triflora, *Roxb. H. B. p.* 38, by a mistake trifolia, in *Roxb. fl. ind.* 2, *p.* 501.) ♄ China. Nepal. Fl. small, white, Feb.; fr. May and June.
3. *nepalensis,* Ser. (*DC. pr.* 2, *p.* 540.—C. glaucifolia, *Wall. Cat.*) ♄ Nepal, Kemaon. Has been introduced into H. C. G. Fl.?
4. *caroliniana,* Michx. (*DC. pr.* 2, *p.* 540,—Prunus caroliniana, *Ait.*) ♄ From Carolina to Florida. Has been introduced into H. C. G. Fl.?

ARMENIACA, Tournef. (*DC. pr.* 2, *p.* 531.)

1. *vulgaris,* Lam. (*DC. o. c. p.* 532.—Prunus Armeniaca, *L.;—Roxb. fl. ind.* 2, *p.* 501;—*J. Grah. Cat. B. pl. p.* 66.) *Common Apricot.* ♄ Armenia. Fl. small, white, fragrant, Jan. and Feb.; fr. H. S., but rare and bad.

AMYGDALUS, L. (*DC. pr.* 2, *p.* 530.)

1. *Persica,* L. (*Roxb. fl. ind.* 2, *p.* 500;—*J. Grah. Cat. B. pl. p.* 66.—Persica vulgaris, *Mill.;—DC. pr.* 2, *p.* 531.) *Peach Tree.* ♄ Persia. Cultivated in gardens. Fl. largish, pale rose, Jan. and Febr; fr. May. β. *nectarina*; (Amygdalus Persica nectarina, *Ait.*—Persica lævis, *DC. l. c.*) ♄ Native place unknown. Fl. and fr. with α.
2. *cordifolia,* Roxb. (*fl. ind.* 2, *p.* 500.) L. ♄ China. In H. C. G. fl. C. S; fr. H. S. Of this tree, which, according to Roxb. was very common about Calcutta in 1814, we know nothing, nor is it mentioned in Wall. Cat.

The *common Almond* and *Cherry Tree* has been tried here repeatedly, but without success.

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* *Prunus insititia*, L.; E. B. 12, t. 841. ♄ England, Germany, S. France.—*P. Cocomilla*, Ten. ♄ Calabria.—*P. japonica*, Thunb. ♄ China, Japan.—α. *simplex*, B. Reg. 21, t. 1801.—β. *plena*, B. Reg. 1, t. 27. (Amygdalus pumila, B. M. 47, t. 2176.)—*Cerasus acuminata*, Wall. pl. as. rar. 2, t. 181. Nepal.—*C. cornuta*, Wall.; Royle. ill. t. 38, f. 2. Sirmore.—*C. Pseudocerasus*, Lindl. B. Reg. 10, t. 800. ♄ China.—*C. Laurocerasus*, Lois. ♄ Levant.—*Armeniaca dasycarpa*, Pers.; B. Reg 15, t. 1243. 5 Country unknown.

SUB-ORDER.—SANGUISORBEÆ, Lindl. Nat. Syst. p. 148.

THE BURNET TRIBE.

Herbs or under-shrubs, by Lindl. referred to 10 genera. Of these, DC. pr. enumerates 24 species for S. America and Mexico; 12 for Europe; 4 for the Straits of Magellan; 2 for N. Africa; 1 for N. America; 1 for Falkland Islands; 1 for the Levant; 2 for Caucasus; 1 for Dahuria; 1 for the Canaries; 1 for New Zealand; and 1 for Tristan d'Acunha. In S. Africa have been found more than 30 species. In India we have *Sanguisorba diandra*, from Gossain Than; and *Alchemilla vulgaris*, from the Neelgherries. The latter is also common to Europe. Properties unimportant. The common Burnet (Sanguisorba officinalis, L.) is greedily eaten by cattle. (*Hornem.*)

Poterium, L. (*DC. pr.* 2, *p.* 594.)

1. *caudatum*, Ait. (*DC. l. c.*;—*B. M.* 49, *t.* 2341.) ♄ Canaries. Fl. minute, crimson, C. S; extremely rare.
2. *Sanguisorba*, L. (*DC. l. c.*;—*E. B.* 12, *t.* 860;—*Roxb. H. B. p.* 68.) ♃. Europe. Fl. green, with purple filaments and yellow anthers. H. S.

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* *Alchemilla arvensis*. L. E. B. 15, t. 1011. ☉ Europe.—*Sanguisorba officinalis*, L.; E. B. 19, t. 1312. ♃. Europe.

ORDER CVI.—FABACEÆ, Lindl. Nat. Syst. p. 148. LEGUMINOSÆ, of others.

THE BEAN TRIBE.

Herbs, under-shrubs, shrubs, or trees, arranged under about 362 genera. Of these, according to DC. pr., B. M. and B. Reg., about 1220 species belong to S. America, Mexico and the W. Indies; (620 Curvembriæ, 600 Rect-

embriæ,) 578 to Europe (1 Rect.); 224 to N. America (12 R.); 284 to New Holland and the South Sea Islands (94 R.); 118 to Siberia; 118 to N. Africa (6 R.); 115 to the Levant (3 R.); 78 to Tauria and Caucasus; 80 to tropical Africa (20 R.); 42 to China and Japan (4 R.); 25 to Iberia; 25 to Dahuria (2 R.); 18 to the Canaries; 20 to Bourbon and Mauritius; (3 R.); 14 to Persia; 22 to Madagascar (11 R.); 20 to Arabia (11 R.); 11 to Abyssinia (6 R.); 12 to Timor (7 R.); 3 to Madeira; 2 to Manilla; 1 to the Marianne Islands; and 1 to Melville Island. S. Africa contains 700 species, referred to 80 genera, of which with the exception of Arachis and Voandzeia, all the papilionaceous ones belong to Curvembriæ, and those with regular or subregular flowers to Rectembriæ. (*Harvey.*) In the E. Indies, excluding almost entirely Java, have been discovered 891 species, arranged under 133 genera, viz.—

CURVEMBRIÆ.

Of Sophora, 2-3.
— Edwardsia, 2.
— Ormosia, 4.
— Macrotropis, 1. (Lour.)
— Piptanthus, 1.
— Thermopsis, 1.
— Heylandia, 1.
— Crotalaria, 80.
— Priotropis, 1.
— Cytisus, 1. (Mussooree.)
— Ononis, 1. (Cashmere, Europe.)
— Anthyllis ? 1. (Lour.)
— Medicago, 8. (4 common to Europe.)
— Rothia, 1.
— Trigonella, 7. (3 common to Europe.)
— Melilotus, 3. (All common to Europe.)
— Trifolium, 3. (2 common to Europe, 1 Lour.)
— Lotus, 1. (Common to Europe.)
— Podolotus, 1.
— Cyamopsis, 1.
— Pycnospora, 1.
— Psoralea, 4. (1 L., 1 Roxb., 2 Lour.)
— Indigofera, 51. (1 common to Egypt.)
— Clitoria, 6. (2 J. Grah.)
Of Shuteria, 3.
— Grona, 1. (Lour.)
— Johnia, 1.
— Galactia, 2.
— Collæa ? 2.
— Pueraria ? 4. (Wall.)
— Dumasia, 3.
— Glycine, 12.
— Pseudarthria, 2.
— Tephrosia, 22.
— Robinia ? 1. (Lour.)
— Sesbania, 5-6.
— Agati, 1.
— Caragana, 6. (Himalayas, Ludak.)
— Colutea, 1. (Kunawar.)
— Oxytropis, 2. (Kunawur.)
— Astragalus, 23. (1 common to Europe.)
— Güldenstadtia, 1.
— Diphaca, 1. (Lour.)
— Ormocarpon, 2.
— Geissaspis, 1.
— Zornia, 3.
— Stylosanthes, 1.
— Æschynomene, 8.
— Smithia, 4.
— Lourea, 5.
— Uraria, 14.
— Desmodium, 60.
— Dicerma, 4.

Of Taverniera, 2.
— Hedysarum ? 1-2. (Lour. J. Grah.)
— Eleiotis, 2.
— Lespedeza, 5.
— Oxyramphis, 3.
— Alhagi, 2. (1 common to Egypt.)
— Alysicarpus, 10.
— Cicer, 2.
— Vicia, 5. (3 common to Europe.)
— Ervum, 3.
— Pisum, 2.
— Lathyrus, 4. (3 common to Europe.)
— Orobus, 1. (Sirmore.)
— Abrus, 3.
— Macranthus, 1. (Lour.)
— Rhynchosia, 10.
— Pyrrhotrichia, 1.
— Flemingia, 19.
— Phaseolus, 38. (1 common to Europe.)
— Nomismia, 3.
— Cantharospermum, 2.
— Cyrtotropis, 1.
— Soja, 1.
Of Dolichos, 32.
— Lablab, 2.
— Pachyrrhizus, 3. (2 Cochin-China.)
— Parochetus, 3.
— Psophocarpus, 1.
— Canavalia, 6.
— Mucuna, 17.
— Cajanus, 2.
— Atylosia, 5.
— Dunbaria, 3.
— Cyanospermum, 1.
— Cylista, 1.
— Erythrina, 15.
— Butea, 8.
— Meizotropis, 1. (Lour.)
— Derris, 2.
— Endespermum, 1.
— Pongamia, 38.
— Millettia, 7.
— Brachypterum, 1.
— Dalbergia, 35.
— Pterocarpus, 7.
— Sarcodum, 1. (Lour.)

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Rectembriæ.

Of Arachis, 1.
— Gleditschia, 1. (Pers.)
— Anoma, 1. (Lour.)
— Guilandina, 3-4.
— Cæsalpinia, 15.
— Poinciana, 2.
— Mezoneuron, 6.
— Pterolobium, 1.
— Hardwickia, 3.
— Jonesia, 2.
— Dalhousiea, 1.
— Humboldtia, 2.
— Amherstia, 1.
— Tamarindus, 1.
— Baryxylum, 1. (Lour.)
— Cathartocarpus, 5.
— Cassia, 24.
— Cynometra, 5.
Of Intsia ? 1.
— Outea, 1.
— Bauhinia, 30.
— Aloexylon, 1. (Lour.)
— Dialium, 1. (Java.)
— Acrocarpus, 1.
— Entada, 1.
— Mimosa, 7. (4 uncertain.)
— Parkia, 2.
— Inga, 24.
— Desmanthus, 4.
— Caillea, 1.
— Adenanthera, 3. (1 uncertain.)
— Prosopis, 1.
— Acacia, 47.
— Vachellia, 1.

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Properties under the several species, as far as India is concerned. :—

A. CURVEMBRIÆ. Radicle back upon the cotyledons.

A. PAPILIONEÆ. Lobes of the calyx distinct. Stamens perigynous. Corol papilionaceous.

B. SWARTZIEÆ. Calyx bladder-shaped, with indistinct lobes. Stamens hypogynous. Corol none, or of one or two petals.

B. RECTEMBRIÆ. Radicle bent straight.

A. CÆSALPINEÆ. Petals before opening imbricated. Stamens perigynous.
a. *Geoffreæ*. Filaments variously connected.
b. *Cassieæ*. Filaments distinct.

B. MIMOSEÆ. Sepals and petals before opening valvate. Stamens hypogynous.
§. *Detarieæ*. Petals none. Fruit drupaceous.

A. PAPILIONEÆ.

a. *Phyllolobæ*.
Cotyledons pushed above ground, becoming green and resembling leaves. Very few bear seeds eaten by man or animals.

α. *Sophoreæ*. Legume continuous. Stamens distinct.
β. *Loteæ*. Legume continuous. Filaments grown together.
γ. *Hedysareæ*. Legume transversely jointed. Filaments nearly always grown together.

b. *Sarcolobæ*.
Germinate with their cotyledons under ground. Among these only *pulse* is found.

α. *Vicieæ*. Legume many-seeded, opening. Leaves cirrhiferous; primordial ones alternate.
β. *Phaseoleæ*. Legume many seeded, opening. Leaves not cirrhiferous, primordial ones opposite.
γ. *Dalbergieæ*. Legume one or two-seeded, not opening. Leaves not cirrhiferous.

A. SOPHOREÆ, Spreng.

(*DC. pr.* 2, *p.* 74.—*W. and A. pr.* 1, *p.* 179.)

SOPHORA, L. (*DC. o. c. p.* 95;—*W. and A. l. c.*)

1. *glauca*, Leschen. (*DC. l. c.*;—*W. and A. l. c.*) ♄ Neelgherries. Fl. middle-sized, white, tinged with rose,—H. and R. S.

2. *tomentosa*, L. (*DC. pr.* 2, *p.* 95;—*W. and A. pr.* 1, *p* 179;—*Roxb. fl. ind.* 2, *p.* 316;—*J. Grah. Cat. B. pl. p.* 44;—*Lam. ill. t.* 325. *f.* 2;—*Rumph.* 4, *t.* 22.) ♄ Moluccas. Mauritius. Ceylon. Both Peninsulas of India. Cultivated in Gardens.—Fl. largish, bright yellow, fragrant, and fr. nearly the whole year.—*Seeds* very bitter, and according to Rumphius, considered a specific in cholera: dose—three or four rubbed up with water. A cold infusion of the *root* praised in spurious pleuritis, and against all poisons produced from the sea.
β. *occidentalis*; (*B. M.* 62, *t.* 3390.—S. occidentalis, *L.*) ♄ W. Indies. In H. C. G.

EDWARDSIA, Salisb. (*DC. pr.* 2, *p.* 97.)

1. *mollis*, Royle. (*ill. t.* 32, *f.* 2.—Sophora mollis, *Wall. Cat.*—S. Houghiana, *Wall. Cat.*) ♄ Hills in the Deyra Dhoon. Sahunsadhara. Sirmore. Fl. middle-sized, yellow, R. S.

2. *maderaspatana*, Wight. ♄ Madras. Introduced in 1841.

E. microphylla, Salisb. has been cultivated here, but without success. The same is to be said of *Virgilia capensis*, Lam; and *Baptisia australis*, R. Br.

ORMOSIA, Jacks. (*DC. pr.* 2, *p.* 97.)

1. *dasycarpa*, Jacks. (*trans. Linn. soc.* 10, *t.* 26;—*DC. l. c.*—Sophora monosperma, *Swz.*—Podalyria monosperma, *Poir;*—*Roxb. H. B. p.* 13.) ♄ W. Indies. Fl. middle-sized, dark purple, fragrant,—April; fr. 0.

? 2. *robusta*, Wight. (Sophora robusta, *Roxb. H. B. p.* 31;—*Wight. icon.* 1, *t.* 245.) ♄ Assam.—In H. C. G. fl. April; fr. July. (*Roxb.*)

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* *Sophora japonica*, L. ♄ Japan, China.—*S.? velutina*, Lindl; B. Reg. 14, t. 1185. ♄ Nepal.—*S. havanensis*, Jacq. ♄ Havannah.—*S. littoralis*, Schrad. ♄ Brazil.—*Edwardsia nitida*, DC. ♄ Bourbon.—*E. denudata*, DC. ♄ Bourbon.—*Ormosia coccinea*, Jacks. ♄ Guiana.—*O. coarctata*, Jacks. ♄ Guiana.—*O. glauca*, Wall. pl. as. rar. 2, t. 125. ♄ Deyra-Dhoon.—*Virgilia aurea*, Lam; Wight. ill. 1, t. 81. ♄ Abyssinia. Courtallum.—*Piptanthus nepalensis*, Swt. Nepal. ♄

B. LOTEÆ, DC.

(*pr.* 2, *p.* 115.—*W. and A. pr.* 1, *p.* 180.)

HEYLANDIA, DC. (*pr.* 2, *p.* 123;—*W. and A. l. c.*)

1. *latebrosa*, DC. (*l. c.*;—*W. and A. l. c.*;—Crotalaria uniflora, *Kön;*—*Roxb. fl. ind.* 3, *p.* 271.—Hallia hirta, *Willd.*—Lespedeza latebrosa, *Pers.*—Hedysarum latebrosum, *L.*;—excl. syn. Petiv.) ♃. Coromandel. Bombay. Hurdwar. Saharunpore. Fl. small, yellow,—C. S.

CROTALARIA, L. (*DC. pr.* 2, *p.* 124;—*W. and A. pr.* 1, *p.* 180.)

1. *alata*, Buch. (C. bialata. *Roxb. fl. ind.* 3, *p.* 274.) ♄ Silhet. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)

2. *parviflora*, Roth. (*DC. pr.* 2, *p.* 224;—*Roxb. H. B. p.* 54.) ⊙ N. America. Fl. small, yellow, Feb. and March; fr. April and May.

3. *sagittalis*, L. (*Roxb. H. B. p.* 54. not L.) ⊙ N. America. Fl. middle-sized, yellow, Feb. and March, fr. H. S.

4. *Wightiana*, Grah. (*W. and A. pr.* 1, *p.* 181.) Has been introduced into H. C. G. from Dindygul Hills. Fl.?

5. *anthylloides*, Lam. (*DC. pr.* 2, *p.* 129;—*W. and A. pr.* 1, *p.* 181;—*J. Grah. Cat. B. pl. p.* 44.—C. stricta, *Roxb. fl. ind.* 2, *p.* 265.—C. Roxburghiana, *DC. l. c.*—C. calycina, *Schrank.*; excl. syn.;—*DC. l. c.*) ⊙ Dindygul. Bombay. Bengal, (Serampore.) Taong-Dong. Assam. Khassya Mountains. Mussooree. Nepal. China. Java. Fl. middle-sized, sulphur, and fr. C. S.

6. *hirta*, Willd. (*DC. pr.* 2, *p* 130;—*W. and A. pr.* 1. *p.* 182.—C. chinensis, *Roxb. fl. ind.* 3, *p.* 268;—not L.) ♄ Peninsula of India. Fl. largish, yellow, Oct. and Nov.; fr. Jan. Feb. and March.

7. *montana*, Roxb. (*fl. ind.* 3, *p.* 265; not Heyne nor Roth.) ♄ Circars. Fl. middle-sized, yellow, R. and C. S.; fr. C. S.
8. *fulva*, Roxb. (*fl. ind.* 3, *p.* 266;—*W. and A. pr.* 1, *p.* 183;—*J. Grah. Cat. B. pl. p.* 44.) ♄ Mysore. Neelgheries. Ram Ghaut. Fl. largish, yellow, Nov. and Dec.; fr. January.
9. *paniculata*, Willd. (*DC. pr.* 2, *p.* 126;—*W. and A. pr.* 1, *p.* 183;—*Roxb. fl. ind.* 3, *p.* 274.—C. chinensis, *Lam;* not L.) Fl. large, yellow, C. S.; fr. H. S.
10. *ramosissima*, Roxb. (*fl. ind.* 3, *p.* 268;—*W. and A. pr.* 1, *p.* 183;—*J. Grah. Cat. B. pl. p.* 44.—C. pellita, *Bert;*—*DC. pr.* 2, *p.* 128.) ♄ Fields at Nalutnar. Interior of Bengal. Fl. largish, yellow, R. and C. S.; fr. C. S. Stains the fingers of a yellow colour. (Law.)
11. *pulcherrima*, Roxb. (*fl. ind.* 3, *p.* 267;—*DC. pr.* 2, *p.* 125;—*W. and A. pr.* 1, *p.* 184;—*Wight. icon.* 2, *t.* 481;—*B. M.* 46, *t.* 2027. C. pulchra, *Andr. B. Re.* 9, *t.* 601.) ♄ Mysore. Fl. large, bright yellow, C. S.; fr. H. S.
12. *juncea*, L. (*DC. pr.* 2, *p.* 125;—*W. and A. pr.* 1, *p.* 185;—*Roxb. Corom.* 2, *t.* 193; *fl. ind.* 3, *p.* 259;—*B. M.* 14, *t.* 490;—*J. Grah. Cat. B. pl. p.* 44.—C. bengalensis, *Lam.*;—*DC. l. c.*—C. tenuifolia. *Roxb. fl. ind.* 3, *p.* 263;—*DC. o. c. p.* 126;—*B. Reg.* 12, *t.* 982. —C. fenestrata, *Sims*;—*B. M.* 44, *t.* 1933;—*DC. l. c.*) শণ *Sun.* ⊙ Both Peninsulas of India. Bengal. (Serampore.) Fl. large, bright yellow, R. and C. S.; fr. C. S.—Extensively cultivated about Bombay, Salsette, and some places in Bengal for the sake of its fibres, which make a good, strong hemp for cordage, canvas, and paper.
13. *tetragona*, Roxb. (*fl. ind.* 3, *p.* 263;—*DC. pr.* 2, *p.* 128;—*W. and A. pr.* 1, *p.* 185;—*B. Repos.* 9, *t.* 593.) ♄ Deyra-Dhoon. Kheree jungle. Fl. large, yellow, R. and C. S; fr. C. S.
14. *sericea*, Retz. (*Roxb. fl. ind.* 3, *p.* 273;—*W. and A. pr.* 1, *p.* 186;—*J. Grah. Cat. B. pl. p.* 45.—C. spectabilis, *Roth.*—*DC. pr.* 2, *p.* 125.) পীয়লি ঝঞ্জন *Peepooli-jhunjhun.* ⊙ Peninsula of India, Bengal, (Serampore.) Assam. Deyra-Dhoon, Kheree Jungle. Fl. large, bright yellow, R. and C. S.; fr. C. S.
15. *retusa*, L. (*DC. pr.* 2, *p.* 125;—*W. and A. pr.* 1, *p.* 187;—*Roxb. fl. ind.* 3, *p.* 272;—*J. Grah. Cat. B. pl. p.* 45;—*B. M.* 52, *t.* 2561;—*B. Reg.* 3, *t.* 253.—Lupinus cochinchinensis, *Lour; DC. pr* 2, *p* 410; —*Rheed.* 9, *t.* 25.—*Rumph.* 5, *t.* 96, *f.* 1.) বিল ঝঞ্জন *Bil-jhunjhun.* Moluccas. Peninsula of India. Taong-Dong. Bengal, (Serampore.) Assam. Kheree jungle. Deyra-Dhoon. Fl. large, bright yellow, C. S.; fr. H. S. Fibres of the bark employed in many places in the manufacture of cordage and canvas.
16. *verrucosa*, L. (*DC. pr.* 2, *p.* 115;—*W. and A. pr.* 1, *p.* 187;—*Roxb. fl. ind.* 3, *p.* 273;—*J. Grah. Cat. B. pl. p.* 45;—*B. M.* 57, *t.* 3034;—*B. Reg.* 14, *t.* 1134;—*Wight. icon.* 1, *t.* 200.—C. angulosa, *Lam.*;—*Roxb. fl. ind.* 3, *t.* 274.—C. cærulea, *Jacq. icon. rar. t.* 144;

—*Burm. zeyl. t.* 34;—*Rheed.* 9, *t.* 29.) বন শণ *Bun-sun.* ⊙ Mauritius. Ceylon. Both Peninsulas of India. Bengal. (Serampore.) Assam. Fl. large, bright blue and greenish white, C. S. particularly; fr. C. S.

17. *semperflorens*, Vent. (*DC. pr.* 2, *p.* 125;—*W. and A. pr.* 1, *p.* 187;—*Roxb. fl. ind.* 3, *p.* 274.) ♄ Sumatra. Neelgherries. Fl. middle-sized. bright yellow, Nov. and Dec.; fr. Jan., Feb. and March.

18. *evolvuloides*, Wight. (*W. and A. pr.* 1, *p.* 188;—*Wight. icon.* 1, *t.* 31.—C. rubiginosa, *Roxb. fl. ind.* 3, *p.* 269; not Willd.) ♃. Dindygul Hills. Monghir. Introduced in 1841.

19. *prostrata*, Roxb. (*fl. ind.* 3, *p.* 270;—*DC. pr*, 2, *p.* 130;—*W. and A. pr.* 1, *p.* 189.) ছোট ঝঞ্জন *Choto-jhunjhun.* ♄ Samulcottah. Prome. Bengal, (Serampore.) Monghir. Fl. small, yellow, R. and C. S.; fr. C. S.

20. *Trifoliastrum*, Willd. (*Roxb. fl. ind.* 3, *p.* 277;—*W. and A. pr.* 1, *p.* 192;—*Wight. icon.* 2, *t.* 421.—C. medicaginea, *DC. pr.* 2, *p.* 133; not Lam.—C. stricta, *Roth.*;—*DC. l. c.*) ♄ Coromandel. Bengal, (Serampore.) Fl. large, yellow, C. S.; fr. H. S.

21. *laburnifolia*, L. (*DC. pr.* 2, *p.* 130;—*W. and A. pr.* 1, *p.* 193;—*Roxb. fl. ind.* 3. *p.* 275;—*J. Grah. Cat. B. pl. p.* 45.—C. pendula, *Bert*;—*DC. l. c.*—C. pedunculosa, *Desv.*;—*DC. o. c. p.* 132.—*Burm. zeyl. t.* 35;—*Rheed.* 9, *t.* 27.) মন *Muna.* ♄ Coromandel. S. Concan. Ceylon. Bengal, (Serampore.) Fl. large, bright-yellow, and fr. nearly the whole year.

22. *arborescens*, Lam. (*DC. pr.* 2, *p.* 130.—C. incanescens, *L. fil.*—C. capensis, *Thunb.*;—*Jacq. vind. t.* 64;—*Roxb. H. B. p.* 54.) 5 C. G. H. Mauritius. Fl. large, yellow, C. S.; fr. 0.

23. *uncinella*, Lam. (*DC. pr.* 2, *p.* 133.—C. elliptica, *Roxb. fl. ind.* 3, *p.* 279.—C. Vachellii, *Hook and Arn. Beech. voy. p.* 180.) ♄ China. Fl. small, yellow, Aug. and Sept; fr. C. S.

24. *bracteata*, Roxb. (*fl. ind.* 3, *p.* 278;—*DC. pr.* 2, *p.* 130;—*Wight. icon.* 1, *t.* 273.) ♄ Taong-Dong, Rangoon. Fl. largish, yellow, Sept. and Oct.; fr. Jan. and Feb.

25. *striata*, DC. (*pr.* 2, *p.* 131;—*B. M.* 59, *t.* 3200.) ♄ Bengal, (Serampore.) Fl. large, yellow, streaked with brownish, R. and C. S.; fr. C. S.

26. *Brownei*, Bert. (*DC. pr*, 2, *p.* 130.—C. latifolia, *Roxb.*;—*Moon's Cat. ceyl. pl.*—C. lanceolata, *Roxb. H. B. p.* 54.) ♄ W. Indies. In H. C. G. fl.; and fr. C. S.

27. *incana*, L. (*DC. pr.* 2, *p.* 132;—*B. Reg.* 5, *t.* 377;—*Jacq. obs.* 4, *t.* 82;—*Cav. icon.* 4, *t*, 322.—C. pubescens, *Mönch*) ♃. W. Indies Fl. middle-sized, yellow; and fr. C. S.

28. *argentea*, Jacq. (*Schönb.* 2, *t.* 220;—*DC. pr.* 2, *p.* 134;—*Roxb. H. B. p.* 54.) ♄ C. G. H. Fl. largish, yellow, C. S.; fr. 0.

29. *pulchella*, Andr. (*B. Repos. t.* 417;—*DC. pr.* 2, *p.* 134;—*B. M.* 41. *t.* 1699.) ♄ C. G. H. Fl. very large, bright yellow, C S.; fr. 0.

30. *purpurea*, Vent. (*Malm. t.* 66;—*DC. pr.* 2, *p.* 133;—*B. Reg.* 2, *t.* 128;—*B. M.* 44, *t.* 1913.—C. elegans, *Don. Hort Cant.*) ♄ C. G. H. —Fl. largish, crimson, Dec.; fr. 0.
31. *quinquefolia*, L. (*DC. pr.* 2, *p.* 135;—*W. and A. pr.* 1, *p.* 194;—*Roxb. fl. ind.* 3, *p.* 279;—*J. Grah. Cat. B. pl. p.* 45.—C. heterophylla, *L. suppl. p.* 323;—*DC. l. c. p.* 131.—*Rheed.* 9, *t.* 28.) ⊙ Amerapura. Tavoy. Coromandel. Ram Ghaut. Bengal, (Serampore.) Fl. large, yellow, C. S.; fr. C. and H. S.

LUPINUS, L. (*DC. pr.* 2, *p.* 406.)

1. *pilosus*, L. (*DC. l. c.*) ⊙ S. Europe. Fl. largish purplish, Feb. and March; fr. May.
2. *varius*, L. (*DC. l. c.*—L. semiverticillatus, *Desrouss.*) ⊙ S. France, Spain. Fl. largish, blue and purplish, Feb. and March; fr. May.
3. *luteus*, L. (*DC. l. c.;—B. M.* 4, *t.* 140.—L. odoratus, *Hortul.*) ⊙ France. Spain. Sicily. Fl. largish, bright, yellow, sweet-scented, Feb. and March; fr. 0. S.

PRIOTROPIS, W. and A. (*pr.* 1, *p.* 180. *annot.*)

1. *cytisoïdes*, W. and A. (*l. c.*—Crotalaria cytisoïdes, *Roxb. fl. ind*, 3, *p.* 276;—*DC. pr.* 2, *p.* 131.—C. psoraleoïdes, *Don.*) ♄ Taong-Dong. Assam. Nepal. Fl. largish, pale yellow, C. S.; fr. H. S.

SPARTIUM, L. (*DC. pr.* 2, *p.* 145.)

1. *junceum*, L. (*DC. l. c.;—Roxb. H. B. p.* 54;—*J. Grah. Cat. B. pl. p.* 43;—*B. M.* 3, *t.* 85.—Genista juncea, *Lam.*—G. odorata, *Mönch.* —Spartianthus junceus, *Lk.*) ♄ S. Europe. Fl. large, yellow, sweet-scented, C. S.; fr. 0.

MEDICAGO, L. (*DC. pr.* 2, *p.* 171.) *Medick.*

1. *circinnata*, L. (*DC. l. c.*—Hymenocarpos circinnatus, *Savi.*) ⊙ Along the Mediterranean. Corsica. Constantinople. Fl. small, yellow, Feb. and March; fr. April and May.
2. *radiata*, L. (*DC. pr.* 2, *p.* 172.—M. circinnata, *Gärtn. fr.* 2, *p.* 348, *t.* 155, *f.* 7; not L.) ⊙ S. France. Egypt. Fl. small, yellow, Feb. and March; fr. April and May.
3. *sativa*, (*DC. pr.* 2, *p.* 173;—*E. B.* 25, *t.* 1749;—*Roxb. H. B. p.* 58; —*J. Grah. Cat. B. pl. p.* 45.) *Lucern* ♃. Spain. Patna. Peer Punjal. Cashmere. Tazeegong in Kunawur. Fl. smallish, purplish-blue, C. S.; fr. H. S. This plant is cultivated in the Deccan for feeding horses; also in Guzerat, where it is coming fast into use among the Natives as green food for cattle. (*Dr. Gibson.*)
4. *apiculata*, Willd. (*DC. pr.* 2, *p.* 175.—M. polycarpa, *Willd. enum. suppl. p.* 52.—M. polycephala, *Hortul.*) ⊙ Nizza. Fl. small, yellow, Feb. and March; fr. April and May.
5. *denticulata*, Willd. (*DC. pr.* 2, *p.* 176.) ⊙ S. France, Oude. Fl. small, yellow, Feb. and March; fr. April and May.
6. *Terebellum*, Willd. (*DC. pr.* 2, *p.* 176.) ⊙ S. Europe. Fl. small, yellow, Feb. and March; fr. April and May.

7. *maculata*, Willd. (*DC. pr.* 2, *p.* 179.—M. polymorpha, *E. B.* 23, *t.* 1616;—*Roxb, H. B. p.* 58.—M. cordata, *Desrouss.*) ⊙ Sandy places of Europe. Fl. small, yellow, Feb. and March; fr. 0.
8. *ciliaris*, Willd. (*DC. pr.* 2, *p.* 180.) ⊙ S. Europe. Fl. small, yellow, Feb. and March; fr. April and May.

Rothia, Pers. (*DC. pr.* 2, *p.* 382;—*W. and A. pr.* 1, *p.* 195.)

1. *trifoliata*, Pers. (*DC. l. c.*;—*W. and A. l. c.*;—*Wight. icon.* 1, *t.* 199.—Dillwynia trifoliata, *Roth*;—*Pers.* Harpelema, *Jacq. ecl.* 2, *t.* 129.—Westonia humifusa, *Spreng.*—Glycine humifusa, *Willd.*—Trigonella indica, *L.*;—*Roxb. fl. ind.* 3, *p.* 389.—Lotus, indicus, *Desrouss*;—*DC. pr.* 2, *p.* 210.) ⊙ Coromandel. Fl. small, sulphur, at last reddish, Feb. and March; fr. April.

Trigonella, L. (*DC. pr.* 2, *p.* 181;—*W. and A. pr.* 1, *p.* 195.)

1. *coerulea*, Ser. (*DC. l. c.*—Trifolium Melilotus coerulea, *L.*,—T. cœruleum, *Willd.*;—*B. M.* 49, *t.* 2283;—*Roxb. H. B. p.* 58.—Melilotus coerulea, *Lam.*) ⊙ Bohemia. Switzerland. Fl. small, pale blue, like the whole plant strongly smelling of Fœnugreek, Jan. and Feb.; fr. March.
2. *Foenum græcum*, L. (*DC. pr.* 2, *p.* 182;—*W. and A. pr.* 1, *p.* 195;—*Roxb. fl. ind.* 3, *p.* 389;—*J. Grah. Cat. B. pl. p.* 45;—*Gärtn. fr.* 2, *p.* 332, *t.* 152, *f.* 3.) বড় মেথী *Buro-methee.* ⊙ S. France. Cultivated in India. Fl. small, white, and fr. C. S. *Seeds* esteemed slightly tonic, and much eaten by the Natives.
3. *corniculata*, L. (*DC. pr.* 2, *p.* 184;—*W. and A. pr.* 1, *p.* 196;—*Roxb. fl. ind.* 3, *p.* 189;—*Wight. icon.* 2, *t.* 384.—T. esculenta, *Willd.*;—*DC. l. c. p.* 185.—T. elatior, *Sm. and Sibth*;—*DC. o. c. p.* 183.) পিড়িঙ্গ *Piring.* ⊙ S. France, Cultivated in India. Fl. small, yellow; and fr. C. S.
4. *ornithopodioïdes*, DC. (*pr.* 2, *p.* 184.—Trifolium ornithopodioïdes, *L*;—*E. B.* 15, *t.* 1047.) ⊙ Europe. Fl. small, rose-coloured; and fr. C. S.

Melilotus, Tournef. (*DC. pr.* 2, *p.* 186;—*W. and A. pr.* 1, *p.* 196.)

1. *officinalis*, L. (*DC. l. c.*;—*E. B.* 19, *t.* 1340.) *Common Melilot.* ⊙ Fields of Europe. Fl. smallish, yellow, Jan. and Feb.; fr. March. Flowers and seeds the chief ingredients in flavoring the Gruyere cheese.
2. *leucantha*, Koth. (*DC. o. c. p.* 187;—*W. and A. pr.* 1, *p.* 196;—*J. Grah. Cat. B. pl. p.* 45.—M. altissima, *Thuill*;—*DC. l. c.*—M. vulgaris, *Willd.*—Trifolium officinale, *L.* β;—*Roxb. fl. ind.* 3, *p.* 388.) বন পিড়িঙ্গ *Bun-piring.* ⊙ Fields of Europe. Peninsula of India. Bengal, (Serampore.) Assam. Saharunpore. Fl. small, white, and fr. C. S.
3. *parviflora*, Desf. (*DC. pr.* 2, *p.* 187;—*W. and A. pr.* 1, *p.* 196;—*J. Grah. Cat. B. pl.* 46.—M. minima, *Roth.*;—*DC. o. c. p.* 189.—Trifolium indicum, *L.* δ. —*Roxb. fl. ind.* 3, *p.* 388.) বন মেথী *Bun-methee* ⊙ France. Italy. Greece. Bengal, (Serampore.) Fl. minute, here white and fr. C. S.

4. *italica*, Lam. (*DC. pr.* 2, *p.* 188.—M. rotundifolia, *Ten.*—Trifolium Melilotus italica, *L.*) ⊙ Italy. Cultivated in Upper India. Fl. small, yellow ; and fr. C. S.
5. *arvensis*, Wallr. (*DC. pr.* 2, *p.* 188.)
   β. *albiflora*, Wallr. (*DC, l. c.*—M. Petitpierreana, *Hayne.*) ⊙ Germany. Fl. small, white, Jan. and Feb. ; fr. March.
6. *sulcata*, Desf. (*DC. pr.* 2, *p.* 189.—M. mauritanica, *Willd.*—Trifolium Melilotus indica, γ. *L.*) ⊙ Cultivated at Algiers and Alexandria. Fl. small, yellow, Jan. and Feb. ; fr. March.

Trifolium, L. (*DC. pr.* 2, *p.* 189.) *Trefoil.*

1. *incarnatum* L. (*DC. o. c. p.* 190 ;—*B. M.* 10, *t.* 328.) ⊙ Meadows of S. Europe. Fl. largish, crimson, Jan. and Feb. ; fr. March.
2. *arvense*, L. (*DC. l. c.* ;—*E. B.* 14, *t.* 944.) ⊙ Europe. Fl. very small, pale reddish ; and fr. C. S.
3. *lappaceum*, L. (*DC. pr.* 2, *p.* 191.) ⊙ S. Europe. Fl. small, white, Feb. ; fr. March and April.
4. *alexandrinum*, L. (*DC. pr.* 2, *p.* 193 ;—*Roxb. H. B. p.* 58.) ⊙ Egypt. Fl. small, yellowish, Feb. ; fr. March and April.
5. *stellatum*, L. (*DC. pr.* 2, *p.* 197 ;—*E. B.* 22, *t.* 1545 ;—*Roxb. H. B. p.* 58.) ⊙ England. S. Europe. Fl. small, rose ; and fr. Jan. and Feb.
6. *strictum*, L. (*DC. pr.* 2, *p.* 198.) ⊙ S. Europe. Hungary. Fl. small, white, Jan. and Feb. ; fr. March.
7. *Michelianum*, Savi. (*DC. pr.* 2, *p.* 201.) ⊙ S. Europe. Fl. small, greenish-white, Feb. ; fr. March.
8. *spumosum*, L. (*DC. pr.* 2, *p.* 202 ;—*Roxb. H. B. p.* 58 ;—*Gärtn. fr.* 2, *p.* 334, *t.* 153.) ⊙ S. Europe. Fl. small, red. In H. C. G. fl. ; and fr. Jan. and Feb. (*Roxb.*)
9. *resupinatum*, L. (*DC. pr.* 2, *p.* 202.) ⊙ S. Europe. Fl. small, purplish, Feb. ; fr. March.

Lotus, L. (*DC. pr.* 2, *p.* 209.)

1. *ornithopodioïdes*, L. (*DC. l. c.*) ⊙ S. Europe. Fl. small, yellow, Jan. and Feb. ; fr. March.
2. *peregrinus*, L. (*DC. l. c.*—L. oligoceratos, *Lam.*) ⊙ S. Europe. Fl. small, yellow, Jan. and Feb. ; fr. March.
3. *jacobæus*, L. (*DC. pr.* 2, *p.* 210 ;—*B. M.* 3, *t.* 79 ;—*Roxb. H. B. p.* 58.) ♄ St. James's Island. Fl. smallish, yellowish-brown, Jan. and Feb ; fr. 0.
4. *diffusus*, Soland. (*DC. pr.* 2, *p.* 213 ;—*E. B.* 13, *t.* 925.) ⊙ England. S. Europe. Fl. small, yellow, Feb. and March. ; fr. 0.
5. *odoratus*, Sims. (*B. M.* 30, *t.* 1233 ;—*DC. pr.* 2, *p.* 214.) ♃. Barbary. Fl. small, yellow, Feb. and March. ; fr. 0.

Cyamopsis, DC. (*pr.* 2, *p.* 215 ;—*W. and A. pr.* 1, *p.* 196.)

1. *psoraloïdes*, DC. (*o. c. p.* 216 ;—*W. and A. o. c. p.* 197 ;—*J. Grah. Cat. B. pl. p.* 46 ;—*Wight. icon.* 1, *t.* 248.—Dolichos psoraloïdes, *Lam.*—D. fabæformis, *L'Herit ;—Roxb. fl. ind.* 3, *p.* 316.—Lupinus

trifoliatus, *Cav. icon.* 1, *t.* 59.—Psoralea tetragonoloba, *L.*) ⊙ Native place uncertain. Fl. small, rose-coloured. In H. C. G. fl. Jan. and Feb. (*Roxb.*) Cultivated for the sake of the fruit, which is eaten like French beans, being delicate and of a pleasant taste.

PSORALEA, L. (*DC. pr.* 2, *p.* 216;—*W. and A. pr.* 1, *p.* 197.)

1. *corylifolia*, L. (*DC. o. c. p.* 218;—*W. and A. o. c. p.* 198;—*Burm. ind. t.* 49;—*Roxb. fl. ind.* 3, *p.* 387;—*J. Grah. Cat. B. pl. p.* 46;—*B. M.* 18, *t.* 665.—Trifolium unifolium, *Forsk.*) হাকুচ *Hakooch.* ⊙ ♂ Arabia. Both Peninsulas of India. Bengal, (Serampore.) Deyra-Dhoon. Kheree jungle. Fl. small, pale lilac, with the wings and keel dark purple-tipped, C. S; fr. H. S.

Several of the Cape species have been cultivated here repeatedly, but without success.

INDIGOFERA, L. (*DC. pr.* 2, *p.* 221;—*W. and A. pr.* 1, *p.* 198.)

1. *linifolia*, Retz. (*DC. o. c. p.* 222;—*W. and A. l. c.*;—*Roxb. Corom.* 2, *t.* 196;—*fl. ind.* 3, *p.* 370;—*Wight. icon* 1, *t.* 313;—*J. Grah. Cat. B. pl. p.* 46.—J. polygonoïdes, *Wendl.*—Hedysarum linifolium, *L.*—Sphæridiophorum, *Desv. journ.* 3, *p.* 125, *t.* 6, *f.* 35.) ভাঙ্গড়া *Bhangra.* ♄ Both Peninsulas of India. Bengal, (Serampore.) Sutanaghur. Fl. small, dark purple; and fr. nearly whole year.
β. *albiflora*; fl. white.
2. *glandulosa*, Roxb. (*fl. ind.* 3, *p.* 372;—*DC. pr.* 2, *p.* 223;—*W. and A. pr.* 1, *p.* 199;—*Wight. icon.* 2, *t.* 330.) ♄ Circars. Fl. small, red. In H. C. G. fl. R. and C. S.; fr. C. S. Of the seeds, the Natives of the hilly countries make meal, which they bake into bread, and use as an article of diet, when more agreeable food is scarce. Cattle are fond of the plant. (*Roxb.*)
3. *enneaphylla*, L. (*DC. pr.* 2, *p.* 229;—*W. and A. pr.* 1, *p.* 199;—*Roxb. fl. ind.* 3, *p.* 376;—*Wight. icon.* 2, *t.* 403.—Hedysarum prostratum, *L.*—*Burm. ind. t.* 55, *f.* 1.) ♃. Melloon, Prome, Segaen. Dindygul Hills, alt. 1800, f. Saharunpore. Fl. small, bright red. In H. C. G. fl.; and fr. the whole year. (*Roxb.*) Cattle eat it greedily.
4. *uniflora*, Buch. (*Roxb. fl. ind.* 3, *p.* 374. excl. syn. Rheed. L. and Pluk.;—*W. and A. pr.* 1, *p.* 199;—*J. Grah. Cat. B. pl. p.* 46.—*Wight. icon.* 2, *t.* 333.) ♃. Mysore. Fl. small, red. In H. C. G. fl.; and fr. the whole year. (*Roxb.*)
5. *pentaphylla*, L. (*DC. pr.* 2, *p.* 230;—*W. and A. pr.* 1, *p.* 200;—*Wight. icon.* 2, *t.* 385.—J. fragrans, *Retz.*;—*DC. l. c.*;—*Roxb. fl. ind.* 3, *p.* 375.—J. glabra, *L.*;—*DC. l. c.*) ♄ Fl. small, purple. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)
6. *viscosa*, Lam. (*DC. pr.* 2, *p.* 227;—*W. and A. pr.* 1, *p.* 200;—*Roxb. fl. ind.* 3, *p.* 377;—*Wight. icon.* 2, *t.* 404.—Galega Colutea, *Burm. ind. p.* 172.) ♄ Both Peninsulas of India. Bengal, (Serampore.) Fl. small, greenish-red, R. and C. S.; fr. C. S.

7. *argentea*, L. (*Spr. syst.* 3, *p.* 375, excl. syn. J. coloratæ, *Roxb.*) 5 Egypt.
8. *paucifolia*, Delile. (*fl. d'Egypt. p.* 107, *t.* 37, *f.* 22;—*DC. pr.* 2, *p.* 224;—*W. and A. pr.* 1, *p.* 201;—*Wight. icon.* 2, *t.* 331.—J. argentea, *Hb. Banks*;—*Roxb. fl. ind.* 3, *p.* 374; not Lam.—Bremontiera Ammoxylon, β. Burmanni, *DC. pr.* 2, *p.* 353.—*Burm. zeyl. t.* 82.) ♄ Egypt. Tanjore. Ceylon. Fl. small, greenish-red, R. S.; fr. C. S.
9. *tinctoria*, L. (*DC. pr.* 2, *p.* 224;—*W. and A. pr.* 1, *p.* 202;—*Roxb. fl. ind.* 3, *p.* 379;—*J. Grah. Cat. B. pl. p.* 46;—*Wight. icon.* 2, *t.* 365.—I. indica, *Lam. ill. t.* 626, *f.* 1.—I. sumatrana, *Gärtn. fr. p.* 317, *t.* 148, *f.* 4;—*Rheed.* 1, *t.* 54.) नील *Neel. Common Indigo-plant.* ♄ Found wild at Quilon and in some parts of the Concan. Fl. small, greenish-rose, R. S.; fr. C. S.
10. *coerulea*, Roxb. (*fl. ind* 3, *p.* 377;—*W. and A. pr.* 1, *p.* 203;—*Wight. icon.* 2, *t.* 366.—I. tinctoria, β. brachycarpa, *DC. ? pr.* 2, *p.* 224.) ♄ Rajamundry Circars. Dindygul Hills. Fl. small, yellowish-red. In H. C. G. fl. R. and C. S. (*Roxb.*) From the leaves of this plant Dr. Roxburgh extracted a most beautiful, light Indigo, and in a greater quantity than he ever got from the common Indigo plant.
11. *polygonata*, Wall. ♄ Ceylon. Comes near to I. coerulea.
12. *pulchella*, Roxb. (*fl. ind.* 3, *p.* 382;—*W. and A. pr.* 1, *p.* 203;—*Wight. icon.* 2, *t.* 367.—I. purpurascens, *Roxb. o. c. p.* 383.—I. cassioïdes, *Rottl.*;—*DC. pr.* 2, *p.* 225.) ♄ Neelgherries, Dindygul Hills; alt. 3000, f. Circar Hills. Fl. smallish, light-purple, R. S.; fr. C. S. (*Roxb.*)
13. *atropurpurea*, Buch. (*Roxb. fl. ind.* 3, *p.* 381;—*DC. pr.* 2, *p*, 225;—*B. M.* 58, *t.* 3065;—*B. Reg.* 21, *t.* 1744;—*Wight. icon.* 2, *t.* 369.) ♄ Nepal. Fl. smallish, dark purple, R. and C. S.; fr. C. S.
12. *violacea*, Roxb. (*fl. ind* 3, *p.* 380;—*B. M.* 61, *t.* 3348.) ♄ Hurdwar Mountains. Fl. middle-sized, purplish violet, Feb. and March.
13. *elliptica*, Roxb. (*fl. ind.* 3, *p.* 380.) ♄ Eastern parts of Bengal. Fl. smallish, bright-rose. In H. C. G. fl. Feb. and March. (*Roxb.*)
14. *arborea*, Roxb. (*fl. ind.* 3, *p.* 381;—*Wight. icon.* 2, *t.* 368.) 5 Shreenaghur. Fl. smallish, bright red violet. In H. C. G. fl. H. S. (*Roxb.*)
15. *uncinata*, Roxb. (*fl. ind.* 3, *p.* 282.) ♄ Pegu. Fl. small, reddish pale greenish yellow. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
16. *Dosua*, Buch ? (J. virgata, *Roxb. H. B.* 1814, *p.* 57;—*fl. ind.* 3, *p.* 383; not DC.—J. heterantha, *Wall.*) ♄ Nepal. In H. C. G. fl. H. S. (*Roxb.*)
17. *trita*, L. (*DC. pr.* 2, *p.* 232;—*W. and A. pr.* 1, *p.* 203;—*Roxb. fl. ind.* 3, *p.* 371;—*J. Grah. Cat. B. pl. p.* 46;—*Wight. icon.* 1, *t.* 315, *and* 2, *t.* 386.—J. cinerea, *Willd.*;—*DC. l. c.*;—*Roxb. o. c. p.* 372.—J. canescens, *Lam*;—*DC. pr.* 2, *p.* 224.—J. hedysaroïdes, *Lam*;—*DC.*

pr. 2, *p.* 232.—J. arcuata, *Willd.*;—*DC. l. c.*—J. rigida, *Willd.*; *DC. pr.* 2, *p.* 224.) ⊙ ♂. Both Peninsulas of India. Bengal. (Serampore.) Delhi. Banks of the Jumna. Fl. small, reddish green; and fr. nearly the whole year.

18. *flaccida*, Kön. (*Roxb. fl. ind.* 3, *p.* 375;—*W. and A. pr.* 1, *p.* 204;—*Wight. icon.* 2, *t.* 387.—J. scabra, *Roth.*;—*DC. pr.* 2, *p.* 229.) ♄ Samulcottah. Dindygul Hills. Fl. small, greenish-red; and fr. nearly the whole year.

19. *hirsuta*, L. (*DC. pr.* 2, *p.* 228;—*Lam. ill.* 626, *f.* 3; not *Jacq. icon. rar.* 4, *t.* 569;—which is I. lateritia, Willd. and I. ferruginea, Schum.;—*Roxb. fl. ind.* 3, *p.* 376;—*W. and A. pr.* 1, *p.* 204;—*J. Grah. Cat. B. pl. p.* 46;—*Burm. zeyl. t.* 14;—*Rheed.* 9, *t.* 30.) ⊙ ♂. Mauritius. Napalry. Nathpur. Quilon. Abundant on Malabar Hill. Bombay. Taong-Dong. Fl. small, deep rose-coloured, R. and C. S.; fr. C. S.

20. *Brunoniana*, *Grah.* (*Wall. pl. as. rar.* 3, *t.* 279.) ♄ Prome Mountains. Fl. smallish, deep rose. In H. C. G. fl. C. S.

Clitoria, L. (*DC. pr.* 2, *p.* 233;—*W. and A. p.* 1, *p.* 205.)

1. *heterophylla*, Lam. (*DC. l. c.*;—*B. M.* 47, *t.* 2111;—*Roxb. fl. ind.* 3, *p.* 321.) ♃. ⌣ Mauritius. Fl. largish, sky-blue; and fr. the whole year.

2. *ternatea*, L. (*DC. pr.* 2, *p.* 233;—*W. and A. pr.* 1, *p.* 205;—*Roxb. fl. ind.* 3, *p.* 321;—*Gartn. fr.* 2, *p.* 321, *t.* 149, *f.* 3;—*J. Grah. Cat. B. pl. p.* 47;—*B. M.* 37, *t.* 1542;—C. lascivia, *Boj.* (*Hort. Maurit. p.* 92.) *Rheed.* 8, *t.* 38;—*Rumph.* 5, *t.* 31.) নীল অপরাজিতা *Neel-uparajita*. ♃. ⌣ Cuba. Arabia. Moluccas. Both Peninsulas of India. Bengal, (Serampore.) Assam. Fl. large, blue, and fr. whole year. *Root* and powdered *seed* purgative. (*Roxb.*)

β *albiflora*, শ্বেত অপরাজিতা *Shwet-uparajita*. Fl. white.

3. *virginiana*, L. (*DC. pr.* 2, *p.* 234;—*B. Reg.* 13, *t.* 1074;—*Roxb. H. B. p.* 55.—C. calcarigera, *Salisb. par. t.* 51.) ♃. ⌣ Hedges of Virginia, Carolina, Jamaica, St. Domingo and Porto-Rico. Fl. large, blueish lilac; and fr. the whole year.

4. *brasiliana*, L. (*DC. pr.* 2, *p.* 234;—*Roxb. H. B. p.* 55;—*J. Grah. Cat. B. pl. p.* 47.—C. amoena, *Roth.*) ♃. ⌣ Brazil. Cayenne. Fl. large blue; and fr. the whole year.

5. *Plumieri*, Turp. (*DC. pr.* 2, *p.* 234;—*B. Reg.* 4, *t.* 268.—C. racemosa, *Moç. and Sessé.*—C. calcarata, *L.' Herit.*) ♃. ⌣ St. Domingo. Mexico. Fl. large, white, tinged with purple, R. and C. S.; fr. C. S.

6. *macrophylla*, Wall. (*Cat.*) Prome. Has been introduced into H. C. G. Fl. ?

Neurocarpum, Desv. (*DC. pr.* 2, *p.* 335.)

? 1. *erectum*, (Clitoria erecta, *Roxb. H. B. p.* 56.) ♄ America. (*Roxb.*) Fl. large, lilac purplish, dark purple dotted, R. and C. S.; fr. C. S. (*Roxb.*) We have not seen the fruit.

SHUTERIA, W. and A. (*pr.* 1. *p.* 207.)

? 1. *involucrata*, W. and A. (*l. c. annot.*—Glycine involucrata, *Wall. pl. as. rar.* 3, *t.* 241.) ♄ ◡ Mountains of Nepal. Fl. small, pale, rose-coloured, May.

JOHNIA, W. and A. (*pr.* (*add. and corr.*) *p.* 1, *p.* 449.—Notonia, *W. and A. pr.* 1, *p.* 207.)

1. *Wightii*, W. and A. (Notonia Wightii, *W. and A. o. c. p.* 208.—Soja Wightii *Grah.*) ♄ ◡ Dindygul Hills. Mysore. Colemala. In H. C. G. ? Fl ?

GLYCINE, L. (*DC. pr.* 2, *p.* 241 ;—*W. and A. pr.* 1, *p.* 208.)

1. *labialis*, L. (*Roxb. fl. ind.* 3, *p.* 318 ;—*W. and A. l. c.*;—*Wight. icon.* 1, *t.* 168.—G. debilis, *Ait.* ;—*DC. l. c.*; not Roxb.—G. parviflora, *Lam.*;—*DC. o. c. p.* 242.) বন কলায় *Bun-kulay*. ♄ ◡ Both Peninsulas of India. Bengal, (Serampore.) Bolahat. Fl. small, rose-coloured, R. S. ; fr. C. S.

2. *debilis*, Roxb. (*fl. ind.* 3, *p.* 317 ; not Ait.) মাশানী *Mashanee*. ♃. ◡ Bengal, (Serampore.) Fl. minute, deep reddish violet, R. S. ; fr. C. S.

3. *dilecta*, Wall. (Pueraria Wallichii, *DC.*) ♄ Nepal.

PSEUDARTHRIA, W. and A. (*pr.* 1, *p.* 209.)

1. *viscida*, W. and A. (*l. c.*;—*Wight. icon.* 1, *t.* 286.—Hedysarum viscidum, *L.* ;—*Roxb. fl. ind.* 3, *p.* 356.—Desmodium viscidum, *DC. pr.* 2, *p.* 336.—Rhynchosia viscida, *DC. pr.* 2, *p.* 387.—Glycine viscida, *Willd.* ;—*Burm. zeyl. t.* 84, *f.* 1.) ♃. Ceylon, Travancore, Dindygul ; alt. 2500. f. Bengal, (Serampore.) Fl. small, deep purple, R. and C. S. ; fr. C. S.

TEPHROSIA, Pers. (*DC. pr.* 2, *p.* 248 ;—*W. and A. pr.* 1, *p*, 209.)

1. *suberosa*, DC. (*l. c. p.* 249 ;—*W. and A. o. c. p.* 210 ;—*Wight. ill.* 1, *t.* 82 ;—*J. Grah. Cat. B. pl. p.* 47.—T. sericea, *DC. l. c*; not Pers. nor DC. o. c. p. 255.—Cytisus sericeus, *Willd.*—Robinia suberosa and sennoïdes, *Roxb. fl. ind.* 3, *p.* 327, *and* 328.) 5 Alpine Vallies in Mysore, Madura, Tinnevelly, and Northern Circars. Abundant on the rocky hills to the eastward of Belgaum and in the Wasua Ghaut. Dinagepore. Fl. large, bright purple, June and July ; fr. 0. *Seeds* used to poison fish. (*Dr. Gibson.*).

2. *fruticosa*, DC. (*pr.* 2, *p.* 249.—Robinia fruticosa, *Roxb. fl. ind.* 3, *p.* 328.) ♄ ◡ Interior of Bengal. Fl. middle-sized, rose-coloured, R. S. ; fr. C. S.

3. *candida*, DC. (*Pr.* 2, *p.* 249 ;—*W. and A. pr.* 1, *p.* 210 ;—*J. Grah. Cat. B. pl. p.* 47.—Robinia candida, *Roxb. fl. ind.* 3, *p.* 327.) ♄ Assam. Khassya Mountains. Deyra-Dhoon. Kheree Jungle. Fl. large, white, R. S. ; fr. C. S.

4. *macrophylla*, Wall. MSS. (Robinia macrophylla, *Roxb. fl. ind.* 3, *p.* 329.—Pongamia ? macrophylla, *Grah. in Wall. Cat.*) ♄ ◡ Interior of Bengal. Fl. smallish, white, June and July ; fr. April.

5. *ferruginea*, Wall. MSS. (Robinia ferruginea, *Roxb. fl. ind.* 3, *p.* 329. —Pongamia ferruginea, *Grah. in Wall. Cat.*) ♄ ◡ Assam. In H. C. G. Fl. R. S.

6. *racemosa*, W. and A. (*pr.* 1, *p.* 210.—Robinia racemosa, *Roxb. fl. ind.* 3, *p.* 329.—Pongamia ? racemosa, *Grah. in Wall. Cat.*) ♄ ◡ Forests of the Circar Mountains. Fl. large, rose-coloured, R. S.; fr. Sept. and Oct.

7. *toxicaria*, Pers. (*DC. pr.* 2, *p.* 249.—Galega toxicaria, Swz.—G. Sinapon, *Buchoz.*) ♄ W. Indies. Cayenne. In H. C. G. Fl. ?

8. *ochroleuca*, Pers. (*DC. pr.* 2, *p.* 250.—Galega ochroleuca, *Jacq. icon. rar.* 1, *t.* 150;—*Roxb. H. B. p.* 57.—G. pubescens, *Lam.*) ♄ W. Indies. Fl. smallish, pale sulphur; and fr nearly the whole year.

9. *tinctoria*, Pers. (*DC. pr.* 2, *p.* 252;—*W. and A. pr.* 1, *p.* 111;—*Wight. icon.* 2, *t.* 388.—T. hypargyrea, *DC. o. c. p.* 253.—T. nervosa, *Pers.*;—*DC. o. c. p.* 254.—Galega Heyneana, *Roxb. fl. ind.* 3, *p.* 384.) ♄ Mysore. Fl. smallish, dull red; and fr. C. S.

10 *senticosa*, Pers. (*W. and A. pr.* 1, *p.* 211;—*DC. pr* 2, *p.* 254;—*Wight. icon.* 2, *t.* 370.—T. spinosa, β. *W. and A. o. c. p.* 214.—Galega senticosa, *L.*—G. pentaphylla, *Roxb. fl. ind.* 3, *p.* 384.) ♄ Mysore. Fl. smallish, dull reddish. In H. C. G. fl; and fr. C. S. (*Roxb.*)

11. *coccinea*, Wall. (*pl. as. rar.* 1, *t.* 60.) ♄ Banks of the Irawaddi. Fl. smallish, scarlet, R. S.

12. *incana*, Grah. (*W. and A. pr.* 1, *p.* 212;—*Wight. icon.* 2, *t.* 371.—G. incana, *Roxb. fl. ind.* 3, *p.* 385.) ♄ Mysore. Fl. small, reddish; and fr. C. S.

13. *villosa*, Pers. (*DC. pr.* 2, *p.* 251;—*W. and A. pr.* 1, *p.* 212.—Galega villosa, *L.*;—*Roxb. fl. ind.* 3, *p.* 385;—*Burm. zeyl. t.* 33.) ♄ Ceylon. Coromandel. Bengal, (Serampore.) Fl. smallish, whitish; and fr. the whole year.

14. *diffusa*, W. and A. (*pr.* 1, *p.* 213;—Galega diffusa, *Roxb. fl. ind.* 3, *p.* 387.) ♄ Dindygul, Arcot. Delhi. Banks of the Jumna. In H. C. G. fl.; and fr. C. S. (*Roxb.*)

15. *purpurea*, Pers. (*W. and A. pr.* 1, *p.* 213.)

α (T. purpurea, *DC. pr.* 2, *p.* 251;—*J. Grah. Cat. B. pl p.* 47.—T. lanceæfolia, *Lk.*;—*DC. l. c.*—Galega purpurea, *L.*;—*Roxb. fl. ind.* 3, *p.* 386.—G. tinctoria, *Lam*; *Roxb. l. c.*; not L.—*Burm. zeyl. t.* 32; —*Rheed.* 1, *t.* 55.) बन नील *Bun-neel.* ♄ Mauritius. Bushire. Ceylon. Concan. Deccan. Deera. Coromandel. Kyouk Talong, Yenangheum. Segaen. Malloon. Tavoy. Bengal, (Serampore.) Monghir. Delhi. Banks of the Jumna. Assam. Fl. small, purple, R. S.; fr. C. S. *Roots* bitter, a decoction considered good in dyspepsia.

β. (Galega lanceæfolia, *Roxb. fl. ind.* 3, *p.* 386.—*T. amœna*, Wall.—Wight. icon. 2, t. 372.) *Zangibar Indigo.* ♄ Circars. Tavoy. Fl. small, dark purple. In H. C. G. fl. and fr. C. S. (*Roxb.*) Fl. white, violet; and fr. whole year.

16. *spinosa*, Pers. (*DC. pr.* 2, *p.* 254;—*W. and A. pr.* 1, *p.* 214;—*Wight. icon.* 2, *t.* 372.—Galega spinosa, *L.*;—*Roxb. fl. ind.* 3, *p.* 383.) ♄ Coromandel.

17. *urophylla*, Wall. Khassya Hills.

Amorpha, L. (*DC. pr.* 2, *p.* 256.)

1. *fruticosa*, L. (*DC. l. c.*;—*B. Reg.* 5, *t.* 427.) ♄ Carolina. Florida. Fl. small, dark purple, R. S.; fr. C. S.

2. *fragrans*, Swt. (A. nana, *Sims.*;—*B. M.* 47, *t.* 2112; not Nutt.—A. coerulea, *Roxb. H. B. p.* 54.) ♄ Fl. small, indigo-coloured. In H. C. G. fl. March. (*Roxb.*) N. America.

Robinia, L. *DC. pr.* 2, *p.* 261.)

1. *Pseudacacia*, L. (*DC. l. c.*;—*Lam. ill. t.* 606, *f.* 1.—Æschynomene Pseudacacia, *Roxb. H. B. p.* 56.—Pseudacacia odorata, *Mönch.*) ♄ N. America, from Canada to Carolina. Fl. white, sweet-scented. Was introduced into H. C. G. in 1808, but had not fl. up to 1814.

Sesbania, Pers. (*DC. pr.* 2, *p.* 264;—*W. and A. pr.* 1, *p.* 214.)

1. *cegyptiaca*, Pers. (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 47;—*Wight. icon.* 1, *t.* 32.—Æschynomene Sesban, *L.*; *Roxb. fl. ind.* 3, *p.* 332.—Æ. indica, *Burm. ind. p.* 169.—Coronilla Sesban, *Willd.*) জয়ন্তী *Juyuntee.* 5 Ceylon. Both Peninsulas of India. Bengal, (Serampore,) Assam. Saharunpore. Fl. middle-sized, R. and C. S.; fr. C. S. Cultivated and extensively used in the plain parts of the Deccan as a substitute for the bamboo. (*Dr. Gibson.*) *Wood* said to make the best charcoal for gunpowder. (*Roxb.*) *Leaves* used by the Natives as a poultice to promote suppuration. (*Wight.*)
α. *bicolor*; (*Rheed.* 6, *t.* 27.) Fl. orange, dark-purple.
β. *concolar*; (*Burm. zeyl. t.* 41.) Fl. yellow, somewhat dark purple-dotted on the banner.

2. *aculeata*, Pers. (*DC. pr.* 2, *p.* 265, excl. syn.;—*W. and A. pr.* 1, *p.* 214;—*J. Grah. Cat. B. pl. p.* 48.—Æschynomene spinulosa, *Roxb. fl. ind.* 3, *p.* 333.—Æ. cannabina, *Roxb. o. c. p.* 335; not Retz.—Æ. bispinosa, *Jacq. icon. rar.* 3, *t.* 564.—Coronilla aculeata, *Willd.*) ধনিচা *Dunicha.* ⊙ Both Peninsulas of India. Bengal, (Serampore.) Gungachara. Saharunpore, Fl. largish, yellow, purple-dotted, Aug. and Sept.; fr. Nov. and Dec. Fibres of bark used for drag-ropes, and nets.

3. *procumbens*, W. and A. (*pr.* 1, *p.* 215;—*J. Grah. Cat. B. pl. p.* 48.—Æschynomene procumbens, *Roxb. fl. ind.* 3, *p.* 337.) ⊙ Peninsula of India. Bengal, (Serampore.) Fl. smallish, yellow, Sept. and Oct.; fr. Nov. and Dec. Cattle eat it.

4. *uliginosa*, (Æschynomene uliginosa, *Roxb. fl. ind.* 3, *p.* 334.) ⊙ Bengal, (Serampore.) Fl. smallish, purplish-yellow, R. S.; fr. C. S.

Agati, Rheed. (*DC. pr.* 2, *p.* 266;—*W. and A. pr.* 1, *p.* 215.)

1. *grandiflorum*, Desv. (*W. and A. l. c.*;—*J. Grah Cat. B. pl. p.* 48. Æschynomene grandiflora, *Roxb. fl. ind.* 3, *p.* 330.) বক *Buko.* ♄ Mo-

luccas. Both Peninsulas of India, Bengal, (Serampore,) Assam. Fl. large, nearly the whole year; fr. C. S. Employed for training the betle-plant. *Wood* only fit for fuel. Tender *leaves, flowers* and young *legumes* much eaten by the Natives; the young *shoots* also by cattle.

α. *albiflorum;* flowers white. (A. grandiflora, *Desv.*; *DC. l. c.*—Æschynomene grandiflora, *L.*,—Coronilla grandiflora, *Willd.*—Sesbania grandiflora, *Pers.*—*Rheed.* 1, *t.* 51;—*Rumph.* 1, *t.* 76.)

β. *coccineum*; flowers scarlet, (A. coccinea, *Desv.*;—*DC. l. c.*—Æschynomene coccinea, *L.*—Coronilla coccinea, *Willd.*—Sesbania coccinea, *Pers.*—*Rumph.* 1, *t.* 77.)

γ. *variegatum*; flowers white and scarlet.

δ. *coccineo-plenum;* flowers double-scarlet.

SUTHERLANDIA, R. Br. (*DC. pr.* 2, *p.* 273.)

1. *frutescens*, R. Br. (*DC. l. c.*;—Colutea frutescens, *L.*;—*B. M.* 6, *t.* 181;—*Roxb. H. B. p.* 56.) ♄ C. G. H. Fl. large pale yellowish scarlet. In H. C. G. fl. May, June and July; fr. Sept. and Oct. (*Roxb.*)

ASTRAGALUS, L. (*DC. pr.* 2, *p.* 281.) *Milk Vetch.*

1. *scorpioïdes*, Pourr. (*DC. o. c. p.* 289.—A subbiflorus, *Lag.*) ⊙ Spain, about Madrid. Fl. small, blue; and fr. C. S.
2. *hamosus*, L. (*DC. pr.* 2, *p.* 290;—*Gärtn. fr.* 2, *p.* 339, *t.* 154;—*Roxb. H. B. p.* 57.—A. austriacus, *Delarb.*) ⊙ From Spain to the Crimea. N. Africa. Fl. small, yellowish; and fr. C. S.
3. *bæticus*, L. (*DC. pr.* 2, *p.* 291;—A. uncinatus, *Mönch.*—A. triangularis, *Munt.*) ⊙ Spain. Sicily. Levant. Barbary. Fl. small, yellowish; and fr. C. S.

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* *Crotalaria Berteriana*, DC. ♄ Guadeloupe.—*C. anagyroïdes*, H. B. Kth. ♄ Caracas.—*C. mollicula*, H. B. and Kth. ♄ Mexico.—*C. vitellina*, Ker.; B. Reg. 6, t. 447. ♄ Brazil.—*C. alata*, Roxb. ♃. Mussooree.—*C. rubiginosa*. Willd. ♄ Neelgherries. Dindygul.—*C. barbata*, Grah. ♃. Neelgherries.—*C. mysorensis*, Roth. ♄ Mysore, Courtallum.—*C. speciosa*, Heyne; Wight. icon. 1, t. 29. ♃. Mysore.—*C. longipes*, W. and A. ♄ Colemala.—*C. lunulata*, Heyne. Wight. icon. 2, t, 480. ♄ Tanjore.—*C. subperfoliata*, Wight. ♄ Dindygul.—*C. candicans*, W. and A. ♄ Neelgherries.—*C. madurensis*, Wight. Madura. Neelgherries.—*C. obtecta*, Grah. Wight. icon. 1, t. 208. ♄ Peninsula of India.—*C. hirsuta*, Willd. ♃. Samulcottah.—*C. bifaria*, L. Wight icon. 1, t. 30. ♃. Tanjore.—*C. linifolia*, L. ♄ Peninsula of India.—*C. biflora*, L. ♃. Peninsula of India.—*C. crassifolia*, Buch. Goalpara. Nepal. Taong-Dong.—*C. Burhia*, Buch. Delhi.—*C. Willdenowiana*, DC. ♄ Travancore.—*C. Notonii*, W. and A. ♄ Neelgherries. Awvery.—*C. neglecta*, W. and A. ♄ Gingie Hills.—*C. herniarioïdes*, W. and A. ♃. Arcot.—*C. orixensis*, Roxb. ♃. Circars. Travancore.—*C. digitata*, Hook. ♄ Madura Hills.—*C. Grahamiana*, W. and A.

♄ Dindygul.—*C. rhizophylla*, Grah. Khassya Mountains.—*Lupinus albus*, L. ⊙ Levant.—*L. Termis*, Forsk. ⊙ Egypt.—*L. hirsutus*, L. ⊙ Spain.—*L. angustifolius*, L. ⊙ S. Europe.—*L. microcarpus*, Sims.; B. M. 50, t. 2413. ⊙ Chili.—*L. subcarnosus*, Hook; B. M. 63, t. 3467. ⊙ Texas.—*L. texensis*, Hook. B. M. 63, t. 3492. ⊙ Texas.—*L. bicolor*, Lindl.; B. Reg. 13, t. 1109. ⊙ Banks of the Columbia River.—*L. micranthus*, Dougl.; B. Reg. 15, t. 1251. ⊙ California.—*Pycnospora nervosa*, W. and A. ♄ Courtallum.—*Genista canariensis*, L.; B. Reg. 3, t. 217. ♄ Canaries.—*G. linifolia*, L.; B. M. 13, t. 442. ♄ S. Europe. N. Africa.—*Anthyllis tetraphylla*, L.; B. M. 3, t. 108. ⊙ S. Europe.—*A. hamosa*, Desf. ⊙ Barbary.—*A. lotoides*, L. ⊙ Spain.—*Medicago obscura*, Retz. ⊙ S. France.—*M. rugosa*, Lam. ⊙ S. Europe.—*M. tuberculata*, Willd. ⊙ S. Europe.—*M. coronata*, Lam. ⊙ S. Europe. Egypt.—*Pocockia cretica*, Ser. ⊙ Candia. Barbary.—*Tetragonolobus purpureus*, Mönch. (Lotus tetragonolobus, L.; B. M. 5, t. 151.) ⊙ S. Europe.—*T. biflorus*, Ser. ⊙ Barbary.—*Indigofera argentea*, L. ♄ Egypt.—*I. Dosua*, Buch. ♄ Nepal.—*I. cinerascens*, DC. ♄ Mauritius.—*I. mucronata*, Spreng. ♄ Jamaica.—*I. echinata*, Willd.; Wight. icon. 1, t. 316. ♃. Coromandel.—*I. aspalathoïdes*, Vahl.; Rheed. 9, t. 37. ♃. Coromandel.—*I. trifoliata*, L.; Wight icon. 1, t. 314. ♃ Dindygul. Nepal.—*Clitoria arborescens*, Ait.; B. M. 59, t. 3165. ♄ Trinidad.—*C. acuminata*, Grah. Tavoy.—*Neurocarpum simplicifolium*, Kth. ♄ Trinidad.—*N. guianense*, Desv. ♄ Guiana.—*Martia physalodes*, Leand. ♄ ◡ Rio Janeiro.—*Cologania angustifolia*, Kth. ♃. ◡ Mexico.—*C. Broussonetii*, DC. ♃. ◡ S. America?—*Galactia pendula*, Pers. B. Reg. 4, t. 269. ♄ ◡ Jamaica, Cayenne.—*G. tenuiflora*, W. and A. ♄ Mountains near Pondicherry.—*G. sericea*, Pers. ♄ ◡ Bourbon.—*G. cubensis*, Kth. ♃. ◡ Havannah.—*Odonia tomentosa*, Bert. ♃. ◡ St. Domingo.—*Vilmorinia multiflora*, DC. ♄ Hayti.—*Barbieria polyphylla*, DC. ♄ Porto Rico.—*Shutera vestita*, W. and A. ♄ ◡ Dindygul Hills.—*Dumasia congesta*, Grah.; Wight. 2, t. 445. ♄ ◡ Neelgherries.—*D. pubescens*, DC; B. R. 12, t. 962. ♄ ◡ Nepal.—*Glycine hedysaroïdes*, Willd. ♄ Guinea.—*G. biloba*, Lindl. B. Reg. 17, t. 1418. ♃. ◡ Mexico.—*Chætocalyx vincentinus*, DC. (Glycine vincentina, Ker.; B. Reg. 10, t. 799.) ♄ ◡ St. Vincent.—*Dalea Lagopus*, Willd. ⊙ Mexico.—*D. tuberculata*, Lag. ♄ Mexico.—*D. mutabilis*, Willd.; B. M. 51, t. 2486. ♃. Mexico, Cuba. *Tephrosia caribæa*, DC. ♄ W. Indies.—*T. corronillæfolia*, DC. ♄ Bourbon.—*T. fusca*, W. and A. ♄ Dindygul.—*T. Hookeriana*, W. and A. ♄ Trichinopoly.—*T. argentea*, Pers. ♄ Peninsula of India.—*T. maxima* Pers. ♄ Samulcottah.—*Eysenhardtia amorphoides*, H. B. and Kth. ♄ Mexico.—*Nissolia fruticosa*, Jacq. ♄ ◡ Carthagena.—*N. racemosa*, DC. ♄ ◡ W. Indies.—*Müllera moniliformis*, L. fil. ♄ Surinam.—*Lonchocarpus macrophyllus*, H. B. Kth. ♄ S. America.—*L. domingensis*, DC. ♄ St. Domingo.—*L. violaceus*, H. B. Kth. ♄ Guadeloupe.

—*Poitæa galegioïdes*, Vent. ♄ St. Domingo.—*P. viciæfolia*, DC. ♄ St. Domingo.—*Sabinea florida*, DC. ♄ St. Thomas. St. Jean.—*Sesbania occidentalis*, Pers. ♄ S. America.—*Daubentonia punicea*, DC. ♄ Mexico.—*D. longifolia*, DC. ♄ Mexico.—*Corynella polyantha*, DC. ♄ St. Domingo.—*Diphysa carthagenensis*, Jacq. ♄ Carthagena.

C. Hedysareæ, DC.

(*Pr.* 2, *p.* 307;—*W. and A. pr.* 1, *p.* 216.)

Ornithopus, L. (*DC. pr.* 2, *p.* 311.)

1. *perpusillus*, L. (*DC. o. c. p.* 312;—*E. B.* 6, *t.* 369.) ⊙ Europe. Barbary. Fl. very small, greenish-white and red, C. S.; fr. Feb.

Ormocarpum, Beauv. (*DC. pr.* 2, *p.* 314;—*W. and A. pr.* 1, *p.* 216.)

1. *sennoïdes*, DC. (*o. c. p.* 315;—*W. and A. l. c.*;—*Wight. icon.* 1, *t.* 292.—Hedysarum sennoides, *Willd.*;—*Roxb. fl. ind.* 3, *p.* 216.) ♄ Circars, Vendalore. Fl. about middle-sized, yellow, sweet scented; and fr. R. and C. S. *Root* stimulant, tonic.

Zornia, Gmel. (*DC. pr.* 2, *p.* 316;—*W. and A. pr.* 1, *p.* 217.)

1. *angustifolia*, Sm. (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 48.—Hedysarum diphyllum, *a. L.*;—*Roxb. fl. ind.* 3, *p.* 353.;—*Rheed.* 9, *t.* 82.) ⊙ Coromandel, Bombay. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)

Stylosanthes, Swz. (*DC. pr.* 2, *p.* 317;—*W. and A. pr.* 1, *p.* 218.)

1. *mucronata*, Willd. (*DC. o. c. p.* 318;—*W. and A. l. c.*—Arachis fruticosa, *Retz.*;—*Roxb. fl. ind.* 3, *p.* 282.—Hedysarum hamatum, *Burm. ind. p.* 167;—*Burm. zeyl. t.* 106, *f.* 2.) ♄ Ceylon, Coromandel. In H. C. G. fl. R. and C. S.; fr. Feb. (*Roxb.*)

Æschynomene, L. (*DC. pr.* 2, *p.* 320;—*W. and A. pr.* 1, *p.* 218.)

1. *aspera*, L. (*DC. l. c.*;—*W. and A. o. c. p.* 219;—*Wight. icon.* 1. *t.* 299.—Æ. lagenaria, *Lour.*—Hedysarum lagenarium, *Roxb. fl. ind.* 3, *p.* 365.) ফুল শোলা *Phool-sola.* ♃. Coromandel. Bengal, (Serampore.) Silhet. Assam. Saharunpore. Fl. middle-sized, brownish orange, R. S.; fr. C. S. The larger plants are particularly light, white, and spongy. They are gathered during April and May, and converted by the Natives of Bengal into a great variety of toys, floats for fishing nets, gentlemen's hats &c.
2. *Roxburghii*, Spreng. (*syst.* 3, *p.* 322.—Æ. subviscosa, *DC. pr.* 2, *p.* 321.—Smithia aspera, *Roxb. fl. ind.* 3, *p.* 343.) ভাট শোলা *Bhat-sola.* ⊙ Bengal, (Serampore.) Fl. middle-sized, bright yellow, R. S.; fr. C. S.
3. *paludosa*, Roxb. (*fl. ind.* 3, *p.* 333.) কাঠ শোলা *Kat-sola.* ⊙ Bengal, (Serampore.) Fl. middle-sized, bright-yellow, purple-dotted, R. S.; fr. C. S.
4. *indica*, L. (*DC. pr.* 2, *p.* 320;—*W. and A. pr.* 1, *p.* 219;—*J. Grah. Cat. B. pl. p.* 48;—*Wight. icon.* 2, *t.* 405.—Hedysarum Neli-tali, *Roxb, fl. ind.* 3, *p.* 365;—*Rheed.* 9, *t.* 18.) ⊙ Coromandel. Bombay. Nepal. Fl. small, reddish-yellow, R. S.; fr. C. S.

SMITHIA, Ait. (*DC. pr.* 2, *p.* 323;—*W. and A. pr.* 1, *p.* 220.)

1. *sensitiva*, Ait. (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 48;—*Roxb. fl. ind.* 3, *p.* 342.—S. geminiflora, *Roth.*;—*DC. l. c.*;—*Rheed.* 9, *t.* 38.) কলকশঙ্খা *Kulkushunda.* ♂ ♃. Coromandel. Bombay. Tavoy. Bengal, (Serampore.) Silhet. Assam. Kheree-jungle, Deyrah-Dhoon. Fl. small, yellow, R. S.; fr. C. S. Makes excellent hay. (*Roxb.*)

LOUREA, Neck. (*DC. pr.* 2, *p.* 323;—*W. and A. pr.* 1, *p.* 221.)

1. *Vespertilionis*, Desv. (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 49;—*Wight. icon.* 1, *t.* 285.—Hedysarum Vespertilionis, *L.*; *Jacq. icon. rar.* 4, *t.* 566;—*Roxb. fl. ind.* 3, *p.* 352.) চামচিকী *Chamchikee.* ⊙ ♂. Coromandel. Bombay. Bengal, (Serampore.) Assam. Fl. small, whitish; and fr. the whole year.

URARIA, Desv. (*DC. pr.* 2, *p.* 324;—*W. and A. pr.* 1, *p.* 221.)

1. *picta*, Desv. (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 50;—*Wight. icon.* 2, *t.* 411.—Doodia picta, *Roxb. fl. ind.* 3, *p.* 368.—Hedysarum pictum, *Jacq, icon. rar.* 3, *t.* 567;—*Roxb. H. B. p.* 57.) শঙ্কর জটা *Sunkur-juta.* ♃. Coromandel. Common in the districts S. E. of Surat. Bengal, (Serampore.) Morung. Saharunpore. Nepal. Fl. small, red, R. and C. S.; fr. C. S.
2. *crinita*, Desv. (*DC. pr.* 2, *p.* 324.—Doodia crinita, *Roxb. fl. ind.* 3, *p.* 369.—Hedysarum crinitum, *L.*;—*Roxb. H. B. p.* 57;—*Burm. ind. t.* 56.) ♄ Tavoy. Amherst. Rangoon. Khassya Mountains. Assam. Fl. middle-sized, rose-coloured, R. and C. S.; fr. C. S.
3. *lagopodioïdes*, DC. (*pr.* 2, *p.* 324, under the name of U. lagopoïdes;—*W. and A. pr.* 1, *p.* 222;—*Wight. icon.* 1, *t.* 289.—Hedysarum lagopodioïdes, *L.*;—*Burm. ind. t.* 53, *f.* 2.;—*Roxb. H. B. p.* 57.—Doodia lagopodioïdes, *Roxb. fl. ind.* 3, *p.* 366.—Lespedeza lagopoides, *Pers.*) গোরক্ষ চাকুল্যা *Gorukhya-chakoolya.* Hind: *Goluk-chakulee.* ♄ Both Peninsulas of India. Bengal, (Serampore.) Assam. Fl. small, rose-coloured, R. and C. S.; fr. C. S.
4. *alopecuroïdes*, Wight. (*icon.* 1, *t.* 290.—U. Lagopus, *Royle. ill. p.* 201, *t.* 33. *f.* 1.—Hedysarum alopecuroides, *Roxb. H. B. p.* 57; not Spreng.—Doodia alopecuroides, *Roxb. fl. ind.* 3, *p.* 368.) ♃. Banks of the Irawaddi. Khassya and Morung Mountains. Kheree jungle. Deyra-Dhoon. Sirmore. Kamaon. Fl. middle-sized, rose-coloured, R. and C. S.; fr. C. S.
5. *hamosa*, Wall. (*W. and A. pr.* 1, *p.* 222;—*Wight. icon.* 1, *t.* 284.—Hedysarum hamosum, *Roxb. H. B. p.* 57.—Doodia hamosa, *Roxb. fl. ind.* 3, *p.* 367.) ♄ Interior of Bengal. Fl. middle-sized, rose-coloured, R. and C. S.; fr. C. S.

? 6. *styracifolia*, W. and A. (*pr.* 1, *p.* 222;—Hedysarum styracifolium, *L.*—H. retroflexum, *L.*—H. procumbens, *Roxb. fl. ind.* 3, *p.* 345.—Nicolsonia styracifolia, *Desv.*—Desmodium retroflexum, *DC. pr.* 2, *p.* 336.) ♃. Coromandel. Tavoy. Silhet. Fl. small, purplish. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)

7. *floribunda*, Wall.—Near to U. hamosa, but larger in all the parts, and the pods with six joints.
8. *cordifolia*, Wall. (*pl. as. rar.* 1, *t.* 37.) ♄ Prome, Taong-Dong. Fl. small, pale-greenish, R. and C. S.; fr. C. S.
9. *campanulata*, Wall. (*Cat.*) ♄ Taong-Dong. Fl. small, whitish, R. and C. S.; fr. C. S.
10. *retrofracta*, Wall. (*Cat.*) ♄ Moulmein. Tavoy. Fl. greenish-white, C. S.

Desmodium, DC. (*pr.* 2, *p.* 325;—*W. and A. pr.* 1, *p.* 223.)

1. *umbellatum*, DC. (*l. c.*;—*W. and A. o. c. p.* 224;—*J. Grah. Cat. B. pl. p.* 49.—Hedysarum umbellatum, *L.*; not Roxb.—Hedysarum arboreum, *Roxb. fl. ind.* 3, *p.* 361;—*Burm. zeyl. t.* 51;—*Rumph.* 4, *t.* 52.) ♄ Moluccas. Singapore. Sagaen. Penang. Mauritius. Ceylon. Districts S. E. of Surat. Near Belgaum, always growing on the banks of streams. Fl. small, greenish-white, April and May; fr. R. and C. S.
2. *congestum*, Wall. (*W. and A. pr.* 1, *p.* 224;—*Wight. icon.* 1, *p.* 209.—Hedysarum umbellatum, *Roxb. fl. ind.* 3, *p.* 360, excl. syn. Burm. not L.) ♄ Circars. Travancore. Fl. small, greenish-white; and fr. C. S.
3. *cephalotes*, Wall. (*W. and A. pr.* 1, *p.* 224;—*Wight. icon.* 2, *t.* 373.—Hedysarum cephalotes, *Roxb. fl. ind.* 3, *p.* 360.) ♄ Mauritius. Travancore. Prome. Tavoy. Pegu. Rangoon. Chittagong. Assam. Nepal. Fl. greenish-white, May, June and July; fr. C. S.
4. *triquetrum*, DC. (*pr.* 2, *p.* 326;—*W. and A. pr.* 1, *p.* 224;—*J. Grah. Cat. B. pl. p.* 49.—Hedysarum triquetrum, *L.*;—*Burm. ind. t.* 52, *f.* 2. H. alatum, *Roxb. fl. ind.* 3, *p.* 348;—*Burm. zeyl. t.* 81.) ♄ Ceylon. Coromandel. Malabar Hill. Salsette, &c. Prome. Chappedong. Bengal. Cawnpore. Assam. Fl. small, pale violet, R. and C. S.; fr. C. S.
5. *alatum*, DC. (*pr.* 2, *p.* 326.—Hedysarum triquetrum, *Roxb. fl. ind.* 3, *p.* 347; not L.) ♄ Peninsula of India. Banks of the Irawaddi. Moulmein. Bengal. Assam. Fl. small, pale rose-coloured, purple-dotted, R. and C. S.; fr. C. S.
6. *latifolium*, DC. (*W. and A. pr.* 1, *p.* 225.) ♄ Fl. small, bright purple, R. and C. S.; fr. C. S.
   a. Roxburghii, W. and A. (*l. c.*—D. latifolium, *DC. pr.* 2, *p.* 328. excl. syn. Plum;—*Wight. icon.* 1, *t.* 270;—*J. Grah. Cat. B. pl. p.* 49. excl. syn. Pluk.—Hedysarum latifolium, *Roxb. fl. ind.* 3, *p.* 350;—*B. Reg.* 5, *t.* 355.) Coromandel. Hilly parts of the Concan. Assam. Nepal.
7. *collinum*, Wall. (Hedysarum collinum, *Roxb. fl. ind.* 3, *p.* 349;—*Wight. icon.* 1, *t.* 272.) ♄ Circars. Fl. small, bright violet. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)
8. *gangeticum*, DC. (*pr.* 2, *p.* 327;—*W. and A. pr.* 1, *p.* 225, excl. syn. Hedysarum collinum, Roxb.—*Wight. icon.* 1, *t.* 271.—Hedysarum gangeticum, *L.*;—*Roxb. fl. ind.* 3, *p.* 349.) সালপাণ *Salpan*, ♄ Both

Peninsulas of India. Bengal, (Serampore.) Monghir. Silhet. Assam. Kamaon. Fl. small, R. and C, S.; fr. C. S.

α. *albiflorum;* fl. white.

β. *purpureum;* fl. purple.

9. *diffusum*, DC. (*pr.* 2, *p.* 336;—*W. and A. pr.* 1, *p.* 226, excl. Hedysarum quinquangulatum, Roxb;—*Wight. icon.* 1, *t.* 298.—Hedysarum auriculatum—by a mistake "articulatum"—*Roxb. fl. ind.* 3, *p.* 355,) ⊙ Both Peninsulas of India. Interior of Bengal. Fl minute, rose-coloured, R. and C. S.; fr. C. S. Greedily eaten by cattle.
10. *quinquangulatum*, Wight. (*icon.* 1, *t.* 293.—Hedysarum quinquangulatum, *Roxb. fl. ind.* 3, *p.* 355.) ♄ Bengal. Fl. small, blue, R. and C. S.; fr. C. S. Greedily eaten by cattle.
11. *recurvatum*, Grah. (*W. and A. pr.* 1, *p.* 226;—*J. Grah. Cat. B. pl. p.* 49;—*Wight. icon.* 2, *t.* 374.—Hedysarum recurvatum, *Roxb. fl. ind.* 3, *p.* 358.) ♄ Travancore. Common on the Ghauts. Cawnpore. Fl. small, bluish-white, R. S.; fr. C. S.
12. *elongatum*, Wall. (*Cat.*—D. diffusum, *DC. pr.* 2, *p.* 335, *No.* 88, *not. p.* 336, *No.* 106;—*Wight. icon.* 2, *t.* 409.—Hedysarum diffusum, *Roxb. fl. ind.* 3, *p.* 357; not Willd.) ♄ Interior of Bengal. Nepal. Taong-Dong. Prome. Fl. small, bright blue, R. and C. S.; fr. C. S.
13. *canescens*, DC. (*pr.* 2, *p.* 328.—Hedysarum canescens, *L.;*—*Roxb. H. B. p.* 57.—H. scaberrimum, *Ell.*) ♃. Dry forests of Carolina and Virginia. Fl. small, pale purple, R. and C. S.; fr. C. S.
14. *paniculatum*, DC. (*pr.* 2, *p.* 329.—Hedysarum paniculatum, *L.;*—*Roxb. H. B. p.* 57.) ♃. Dry forests and fields from N. York to Carolina. Fl. reddish purple, small, R. and C. S.; fr. C. S.
15. *viticinum*, Wall. (*Cat.*) ♄ Nepal. Fl. small, reddish, R. and C. S.; fr. C. S.
16. *nutans*, Wall. (*Cat.—B. M.* 55, *t.* 2867.) ♄ Sirmore. Fl. middle-sized, bluish-purple, May, June and July; fr. C. S.
17. *tuberosum*, (Hedysarum tuberosum, *Roxb. fl. ind.* 3, *p.* 363.—Pueraria tuberosa, *DC. pr.* 2, *p.* 240;—*W. and A. pr.* 1, *p.* 205;—*J. Grah. Cat. B. pl. p.* 47;—*Wight. icon.* 2, *t.* 412.—Kadsumi, *Banks. icon. Kämpf. t.* 25.) ♄ ◡ Circars. Malabar Hill near Walkeshwar village. Hurdwar. Kheree-jungle. Deyra-Dhoon. Japan. Fl. middle sized, blue, March; fr. 0. Roxb. distinctly says: "Legumes 2-6 jointed." The *root* peeled and bruised into a cataplasm is employed by the Natives of the mountains where it grows, to reduce swellings of the joints. (*Roxb.*)
18. *ancistrocarpon*, Ledeb. (*DC. pr.* 2, *p.* 331.) ♄ Brazil. R. S.
19. *gyrans*, DC. (*pr.* 2, *p.* 326;—*W. and A. pr.* 1, *p.* 227;—*J. Grah. Cat. B. pl. p.* 49;—*Wight. icon. t.* 294.—Hedysarum gyrans, *L;*—*Jacq. icon. rar.* 4, *t.* 564;—*Roxb. fl. ind.* 3, *p.* 351.) বন চাড়াল *Buncharal.* ♄ Both Peninsulas of India. Bengal, (Serampore.) Assam. Kheree-jungle. Deyra-Dhoon. Kamaon. Fl. small, dull-orange, R. and C. S; fr. C. S.

20. *gyroïdes*, DC. (*pr.* 2, *p.* 326;—*W. and A. pr.* 1, *p.* 227.—Hedysarum gyroïdes, *Roxb. H. B. p.* 57.) ♄ Bengal. Assam. Nepal. Fl. small, yellowish, Oct. and Nov.; fr. Dec. and Jan.
21. *polycarpum*, DC. (*pr.* 2, *p.* 334;—*W. and A. pr.* 1, *p.* 227;—*J. Grah. Cat. B. pl. p.* 49.—*Wight. icon.* 2, *t.* 406.—D. heterocarpum, *DC. o. c. p.* 337.—D. capitatum, *DC. o. c. p.* 336.—D. angulatum, *DC. o. c. p.* 335.—D. siliquosum, *DC. o. c. p.* 336.—Hedysarum heterocarpum *L.*—H. polycarpum, *Lam. ill. t.* 628.—H. capitatum, *Burm. ind. t.* 54, *f.* 1.—H. conicum, *Poir.*—H. siliquosum, *Burm. ind. t.* 55, *f.* 2.—H. purpureum, *Roxb. fl. ind.* 3, *p.* 358.—*Burm. zeyl. t.* 53, *f.* 1, 2.) ♄ Ceylon. Both Peninsulas of India. Bengal. Assam. Kamaon. China. Gambiers' Island in the Pacific Ocean. Fl. largish, bright bluish-purple, R. S; fr. C. S.
21. *triflorum*, DC. (*pr.* 2, *p.* 334;—*W. and A. pr.* 1, *p.* 229, excl. *a*;—*J. Grah. Cat. B. pl. p.* 49, excl. Hedysarum reptans, Roxb. and syn. Burm. zeyl. f. 1, t. 54.—*Wight. icon.* 1, *t.* 292.—Hedysarum triflorum, *Willd.*;—*Roxb. fl. ind.* 3, *p.* 353.—H. stipulaceum, *Burm. ind. t.* 54, *f.* 2.—Æschynomene triflora, *Poir.*—*Burm. Zeyl. t.* 54, *f.* 2.) কুদালিয়া *Koodaliya.* ♃. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Monghir. Nepal. Fl. small, blue; and fr. whole year. The Natives apply the fresh plant bruised to wounds that do not heal well.
22. *heterophyllum*, DC. (*pr.* 2, *p.* 334.—D. triflorum *a.* majus, *W. and A. pr.* 1, *p.* 229;—*Wight. icon.* 1, *t.* 291.—Hedysarum reptans, *Roxb. fl. ind.* 3, p. 354; not Poir—and consequently not Desmodium reptans, DC. o. c. p. 333.—H. heterophyllum, *Willd.*;—*Burm. zeyl. t.* 54, *f.* 1.) ♃. Ceylon. Both Peninsulas of India. Bengal. (Serampore.) Nepal. Fl. small, white, R. and C. S.; fr. C. S. This species with *No.* 21, is cultivated in the garden here, and they both continue distinct.
23. *parvifolium*, DC. (*pr.* 2, *p.* 334;—*W. and A. pr.* 1, *p.* 229.—Hedysarum tenellum, *Don. pr. fl. nep.* 243; not Kth.) ♃. Nepal. Fl. small, C. S.
24. *orbiculatum*, Wall. (*Cat.*—Hedysarum orbiculatum, *Roxb. H. B. p.* 57;—not Rottl.) ♄ ◡ Silhet. In H. C. G. fl. Sept. and Oct.; fr. C. S. (*Roxb.*)
25. *barbatum*, Wall. (*Cat.*) Nepal. In H. C. G. fl.?
26. *divergens*, Wall, (Hedysarum divergens, *Roxb. H. B. p.* 57; not Mühl.) ♄ Silhet. Fl. and fr. C. S. (*Roxb.*)
27. *patens*, Wight. (*icon.* 2, *t.* 407.—Hedysarum patens, *Roxb. H. B. p.* 57; *fl. ind.* 3, *p.* 362.) ♃. Moluccas. Fl. small, purple, R. and C. S. fi. C. S. (*Roxb.*)
28. *Hardwickianum*, (Hedysarum rhombifolium, *Roxb. H. B. p.* 57; not Ell.) ♄ Hindoosthan. Fl. Oct. and Nov. fr. C. S. (*Roxb.*)

Dicerma, DC. (*pr.* 2, *p.* 339;—*W. and A. pr.* 1, *p.* 230.)

1. *pulchellum*, DC. (*l. c.*;—*W. and A. l. c.*;—*Wight. icon.* 2, *t.* 418.—Hedysarum pulchellum, *L.*;—*Roxb. fl. ind.* 3, *p.* 361.—Phyllodium

pulchellum, *Desv.*—Zornia pulchella, *Pers.*—*Burm. zeyl. t.* 52.) জটাসালপানী *Juta-salpanee.* ♄ Mauritius. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Assam. Kheree-jungle Deyra-Dhoon. Fl. small, greenish sulphur, R. and C. S.; fr. C. S.

HEDYSARUM, L. (*DC. pr.* 2, *p.* 340.)

1. *coronarium*, L. (*DC. o. c. p.* 341.—*Gärtn. fr.* 2, *p.* 346, *t.* 155, *f.* 5; —*Roxb. H. B. p.* 57.) ♃. Meadows of Italy. Fl. small, deep-red, and fr. C. S.

LESPEDEZA, Michx. (*DC. pr.* 2, *p.* 348;—*W. and A. pr.* 1, *p.* 231.)

1. *juncea*, Pers. (*DC. l. c.*—Hedysarum junceum, *L. fl. dec.* 1, *t.* 4;—*Roxb. fl. ind.* 3, *p.* 362.—Anthyllis cuneata, *Dum.*—Hedysarum sericeum, *Thunb.*; not Vahl. nor Bieb.) ♄ Siberia. New Holland. Japan. Nepal. Fl. small, white, R. and C. S.; fr. C. S.

ALHAGI, Tournef. (*DC. pr.* 2, *p.* 352;—*W. and A. pr.* 1, *p.* 232.)

1. *Maurorum*, Tournef (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. p.* 50.—Hedysarum Alhagi, *L.*;—*Roxb. fl. ind.* 3, *p.* 344.—Alhagi mannifera, *Desv.*—A. nepalensium, *DC.*—Ononis spinosa, *Hasselq.* not L.—Manna hebraica, *Don. pr. fl. nep. p.* 246.) জবসা *Juvasa.*—*Hebrew Manna plant.* ♄ Deserts of Egypt. Syria and Mesopotamia. Monghir. Benares. Delhi. Common in Guzerat and S. Maharatta Country. Scinde. Fl. smallish, red. Introduced into H. C. G. in 1810, but had not fl. in 1814. Affords a grateful food for the Camel in desert places, (*Royle.*) The Hebrew Manna exudes from its leaves and branches. In the hot season when almost all the smaller plants die, this sends forth leaves and flowers. (*Dr. Gibson.*)

ALYSICARPUS, Neck. (*DC. pr.* 2, *p.* 352.; *W. and A. pr.* 1, *p.* 1, *p.* 232.)

1. *monilifer*, DC. (*o. c. p.* 353;—*W. and A. l. c.*;—Hedysarum moniliferum, *L.*;—*Burm. ind. t.* 52, *f.* 3.;—*Roxb. fl. ind.* 3, *p.* 345.) ♄ Coromandel. Moulmein. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)
2. *vaginalis*, DC. (*pr.* 2, *p.* 353;—*W. and A. pr.* 1, *p.* 233.—Hedysarum vaginale, *L.*;—*Roxb. fl. ind.* 3, *p.* 345. excl. syn. Burm.—H. buplerifolium, *Roxb. o. c. p.* 346) কড়িলা *Kurila.* ♄ Both Peninsulas of India. Ceylon. Bengal, (Serampore.) Monghir. Fl. small, greenish-purple, R. and C. S.; fr. C. S.
3. *bupleurifolius*, DC. (*pr.* 2, *p.* 352;—excl. syn. primum Pluk. amalth. p. 189. t. 443. f. 4;—*W. and A. pr.* 1, *p.* 233;—*J. Grah. Cat. B. pl. p.* 50, excl. syn. Roxb.—Hedysarum bupleurifolium, *L.*; not Roxb. —*B. M.* 41, *t.* 1722.—H. gramineum, *Retz.*;—*Roxb. Corom.* 2, *t.* 194;—*fl. ind.* 3, *p.* 346;—*Rheed.* 9, *t.* 32.) ♃ Peninsula of India. Bengal, (Serampore.) Fl. smallish, rose-orange, R. and C. S.; fr. C. S.
4. *styracifolius*, DC. (*pr.* 2, *p.* 353, excl. syn.;—*W. and A. pr.* 1, *p.* 234;—*J. Grah. Cat. B. pl. p.* 50.—A. cylindraceus, *Desv.*—Hedysarum glumaceum, *Kön.*;—*Roxb. fl. ind.* 3, *p.* 347;—*Roth.*; not Willd. nor Vahl.) ♂ Arcot, Coromandel, Ava. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)

5. *Heynianus*, W. and A. (*pr.* 1, *p.* 234.—Hedysarum styracifolium, *Roxb. fl. ind.* 3, *p.* 347; not L.) ♄ Coromandel. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)

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* *Scorpiurus lævigata*, Sibth. and Sm. ⊙ Archipelagus.—*S. purpurea*, Desf. ⊙ Algiers.—*S. vermiculata*, L. ⊙ Coasts of the Mediterranean.—*Coronilla cretica*, L. ⊙ Candia.—*Arthrolobium* (Astrolobium, DC.) *ebracteatum*, DC. ⊙ Portugal, Spain, Italy.—*A. repandum*, DC. ⊙ Barbary.—*A. scorpioïdes*, DC. ⊙ S. Europe.—*Ornithopus compressus*, L. ⊙ S. Europe. Barbary.—*Hippocrepis scabra*, DC. ⊙ Murcia.—*H. multisiliquosa*, L. ⊙ S. Europe. Barbary.—*H. unisiliquosa*, L. ⊙ S. Europe. Barbary.—*Securigera Coronilla*, DC. ⊙ S. Europe.—*Pictetia squamata*, DC. ♄ St. Thomas.—*P. aristata*, DC. ♄ St. Cruze.—*Amicia glandulosa*, H. B. Kth. ♄ ◡ N. Granada.—*A. Zygomeris*, DC. ♄ ◡ Mexico.—*Poiretia scandens*, Vent. ♄ ◡ St. Domingo.—*Myriadenus tetraphyllus*, DC. ♃. Jamaica.—*Geissaspis cristata*, W. and A. ♃. Courtallum.—*Zornia zeylonensis*, Pers.; Burm zeyl. t. 50, f. 1. ⊙ Ceylon. Coromandel.—*Z. thymifolia*, H. B. Kth. ♄ Mexico.—*Stylosanthes procumbens*, Swz. ♄ Jamaica.—*Adesmia longiseta*, DC. ♃. S. America.—*Æschynomene sensitiva*, Swz. ♄ Jamaica, Brazil.—*Smithia ciliata*, Royle. ill. t. 35, f. 2. ♃. Mussooree.—*Lourea obcordata*, Desv. Java.—*L. reniformis*, DC. Suburbs of Canton.—*Uraria crinita*, Desv. β. *macrostachya*, Wall. pl. as. rar. 2, t. 110. ♄ Amherst. Tavoy.—*Nicolsonia cayennensis*. ♄ Cayenne.—*Desmodium rufescens*, DC.; Wight. ill. 1, t. 79. ♄ Neelgherries.—*D. strangulatum*, W. and A. ♃. Peninsula of India.—*D. reniforme*, DC.; Burm. ind. t. 52, f. 1. ♃. Coromandel. Prome. Taong-Dong.—*D. sequax*, Wall. pl. as. rar. 2, t. 157. ♄ Kamaon.—*D. auricomum*, Grah. Tavoy.—*D. Perrottetii*, DC. ♄ Guiana.—*D. angustifolium*, DC. ♄ Mexico.—*D. Alamani*, DC. ♃. Mexico.—*D. Aparines*. DC. ♃. Mexico.—*D. incanum*, DC. ♄ Jamaica. *D. supinum*, DC. ♄ Jamaica.—*D. molle*, DC. ♄ St. Thomas.—*D. mauritianum*, DC. ♄ Mauritius.—*D. Scalpe*, DC. ♄ Bourbon.—*D. oxybracteum*, DC. ♄ Mauritius.—*Dicerma elegans*, DC. ♄ Canton.—*D. biarticulatum*, DC.; Wight. icon. 2, t. 419.—Burm. zeyl. t. 50, f. 2. ♄ Peninsula of India. Ceylon. Paghamew.—*Taverniera spartea*, DC.; Burm. ind. t. 51, f. 2. ♄ Peninsula of India.—*Hedysarum capitatum*, Desf. B. M. 31, t. 1251. ⊙ Barbary.—*H. humile*, L. ♃. S. Europe.—*Eleiotis sororia*, DC. ♃. Peninsula of India.—*Lespedeza eriocarpa*, DC. Nepal.—*Alysicarpus nummularifolius*, DC. ♄ Peninsula of India. Ceylon. Martaban.—*A. longifolius*, W. and A.; Wight. icon. 1, t. 251. ♃. Cornfields in N. Circars.—*A. Wallichii*, W. and A. ♄ Nepal, Taong-Dong.—*A. belgaumensis*, Wight. icon. 1, t. 92. ♄ Ram Ghaut.—*Bremontiera Ammoxylon*, DC. ♄ Mauritius.

D. Vicieæ, Bronn.

(*DC. pr.* 2, *p.* 353;—*W. and A. pr.* 1, *p.* 235.)

Cicer, L. (*DC. pr.* 2, *p.* 354;—*W. and A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 324;—*J. Grah. Cat. B. pl. p.* 50;—*B. M.* 49, *t.* 2274;—*Wight. icon.* 1, *t.* 20.) বুট কলায় *Boot-kulay.* চনা *Chuna. Chickpea. Chiches.* ⊙ Spain. Italy. Levant. Cultivated in India. Fl. middle-sized, bluish-purple, and fr. C. S. Dr. Christie, in *Madras Journal of Science, No.* 13, mentions that an acid, (oxalic acid) exudes from all parts of the plant, which is collected by the ryots, and used in their curries instead of vinegar. (*J. Grah.*)

Vicia, L. (*DC. pr.* 2, *p.* 354.)

1. *Faba,* L. (Faba vulgaris, *Mönch.*;—*DC. pr.* 2, *p.* 354.) *Garden Bean.* ⊙ Environs of the Caspian Sea. Cultivated in India. Fl. large, white, striped and dotted with black, Nov. and Dec.; fr. Jan. and Feb.

   β. *equina, Horse-Bean. Ticks.* Cultivated in Nepal.

2. *onobrychioides,* L. (*DC. pr.* 2, *p.* 358;—*B. M.* 48, *t.* 2206.) *Saint-Foin Vetch.* ⊙ Europe. Fl. large, indigo-coloured, C. S. Affords an excellent fodder.

3. *atropurpurea,* Desf. (*DC. pr.* 2, *p.* 359;—*B. Reg.* 11, *t.* 871.) ⊙ Algiers. Fl. largish, purple, Feb. and March; fr. March.

4. *sativa,* L. (*DC. pr.* 2, *p.* 360;—*E. B.* 5, *t.* 334;—*Roxb. fl. ind.* 3, *p.* 323.) বড় চনা *Buro-chuna,* ঝঞ্জনী আঁকরী *Jhunjhunee-ankuree. Common Vetch.* ⊙ ♂ Europe. Domesticated in Bengal and the Northern Provinces of India. Fl. middle-sized, bright purple, variegated with white-rose, C. S.; fr. Feb. and March.

Ervum, L. (*DC. pr.* 2, *p.* 366;—*W. and A. pr.* 1, *p.* 235.)

1. *Lens,* L. (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 50.—E. dispermum, *Roxb. and Willd.*;—*DC. l. c.*—Cicer Lens, *Roxb. fl. ind.* 3, *p.* 324.—Lens esculenta, *Mönch.*—Cicer punctulatum, *Hortul.*) বড় মসুর *Buro-musoor.—Lentil Tare.* ⊙ Europe. Cultivated in Bengal, and other adjoining provinces. Fl. small, pale-blue, and fr. C. S.

2. *hirsutum,* L. (*DC. pr.* 2, *p.* 366;—*W. and A. pr.* 1, *p.* 235;—*E. B.* 14, *t.* 970;—*Roxb. fl. ind.* 3, *p.* 323.—Vicia Mitchelli, *Rafin*;—*DC. pr.* 2, *p.* 360.) ছোট মসুর *Choto-musoor. Hairy Tare.* ⊙ Fields of Europe. Domesticated in Bengal and N. India. Fl. small, pale-lilac, and fr. C. S. In the Upper Provinces used for fodder.

3. *tetraspermum,* L. (*DC. pr.* 2, *p.* 367.—*E. B.* 17, *t.* 1223.) *Smooth Tare* ⊙ In corn-fields Europe, Himalayas. Fl. small, pale blue, and fr. C. S.

Pisum, L. (*DC. pr.* 2, *p.* 368.)

1. *sativum,* L. (*DC. l. c.*;—*Roxb. fl. ind,* 3, *p.* 321.—*J. Grah. Cat. B. pl. p.* 50.) মটর *Mutur. Pea.* ⊙ Native place unknown. Cultivated in India. Fl. large, white, or variegated with red, and fr. C. S.

α. *macrocarpum*, Ser. *Sugar Pea.*

β. *quadratum*, L. ছোট মটর *Choto-mutur. Grey Pea.*—A small greenish variety of this much cultivated in Bengal.

γ. *agreste ; Patna, or common white field-pea.*

LATHYRUS, L. (*DC. pr.* 2, *p.* 369.)

1. *palustris*, L. (*DC. o. c. p.* 371.—*Fl. Dan. t.* 399 ;—*Roxb. H. B. p.* 56.) ♃. N. Europe. Fl. smallish, blue violet, with reddish banner, C. S.
2. *Aphaca*, L. (*DC. o. c. p.* 372 ;—*E. B.* 17, *t.* 1167 ;—*Roxb. fl. ind.* 2, *p.* 322.) জঙ্গলী মটর *Junglee-mutur. Yellow Vetchling.* ⊙ Corn-fields of Europe. Common in Bengal, (Serampore) and near the banks of rivulets in N. India. Fl. middle-sized, lemon-coloured, and fr. C. S. Ripe *seeds* narcotic when eaten abundantly, but when young perfectly harmless.
3. *Nissolia*, L. (*DC. pr.* 2, *p.* 372 ;—*E. B.* 2, *t.* 112.) *Crimson Grass Vetch.* ⊙ England. S. Europe. Fl. middle-sized, crimson, and fr. C. S.
4. *sativus*, L. (*DC. pr.* 2, *p.* 373 ;—*B. M.* 4, *t.* 115 ;—*Roxb. fl. ind.* 3, *p.* 322 ;—*J. Grah. Cat. B. pl. p.* 51,—Cicercula alata, *Mönch.*) তেওড়া *Teora.* খেসারী *Khesaree. Blue-flowered Chichling Vetch.* ⊙ Spain. Cultivated in India. Domesticated about Serampore. Fl. large, blue, and fr. C. S. Affords much wholesome green fodder. *Seeds* eaten by the Natives.
5. *annuus*, L. (*DC. pr.* 2, *p.* 373.) ⊙ Spain. Fl. small, yellow ; fr. C. S.
6. *hirsutus* L. (*DC. pr.* 2, *p.* 373 ;—*E. B.* 18, *t.* 1255.) ⊙ England. S. Europe. Fl. smallish, light blue crimson, C. S. ; fr. Feb. and March.
7. *odoratus*, (*DC. pr.* 2, *p.* 374 ;—*B. M.* 2, *t.* 60 ;—*Roxb. H. B. p.* 56.) *Sweet Pea.* ⊙ S. Europe. ? Fl. large, lilac deep-crimson, sweet-scented, C. S.
8. *tingitanus*, L. (*DC. pr.* 2, *p.* 374 ;—*B. M.* 3, *t.* 100 ;—*B. Reg.* 16, *t.* 1388 ; *Roxb. H. B. p.* 56.) *Tangier Pea.* ⊙ Tangier. Fl. large deep crimson, C. S. ; fr. H. S.
9. *articulatus*, L. (*DC. pr.* 2, *p.* 375 ;—*B. M.* 8, *t.* 253 ;—*Gärtn. fr.* 2, *p.* 331, *t.* 152.—Clymenum bicolor, *Mönch.*) ⊙ S. Europe. Fl. largish, white crimson, C. S. ; fr. H. S.
10. *cornutus*, Horn. (*DC. pr.* 2, *p.* 376.) ⊙ Native place unknown. Fl. smallish, purple, C. S.

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* *Vicia setifolia*, H. B. Kth. ♃. Mexico.—*V. Pseudocracca*, Bertol. ⊙ Pisa.—*V. villosa*, Roth. ⊙ Germany.—*V. disperma*, DC. ⊙ S. France.—*V. pimpinelloïdes*, Mauri. ⊙ Rome.—*V. incisa*, Bieb. ⊙ Tauria.—*V. cordata*, Wulf. ⊙ Germany.—*V. peregrina*. L. ⊙ S. Europe.—*V. lutea*, L. ; E. B. 7, t. 481. ⊙ England. S. Europe.—*V. hybrida*, L.; E. B. 7, t. 482. ⊙ England. S. Europe.—*V. narbonensis*, L. ⊙ S. Europe.—*Ervum nigricans*, Bieb. ⊙ Tauria.—*E. Lenticula*, Schreb. ⊙ Austria.—*E. Ervilia*, L. ⊙ S. Europe.—*E. monanthon*, L. ⊙ S. Europe.—

Lathyrus sphæricus, Retz. ⊙ S. Europe.—*L. angulatus*, L. ⊙ S. Europe. N. India.—*L. selifolius*, L. ⊙ S. Europe.—*L. Cicera*, L. ⊙ Spain. —*L. grandiflorus*, Sims.; B. M. 44, t. 1938. ⊙ Italy.—*L. clymenoides*, DC. ⊙ Mauritius.—*L. bithynicus*, Lam.; E. B. 26, t. 1842. ⊙ Levant. S. France.—*L. alatus*, Ten. ⊙ Italy.—*L. Clymenum*, L. ⊙ S. Europe. —*L. tenuifolius*. Desf. ⊙ Algiers.—*L. Ochrus*, DC. ⊙ S. Europe.

E. PHASEOLEÆ,—Bronn.

(*DC. pr.* 2, *p.* 381;—*W. and A. pr.* 1, *p.* 236.)

ABRUS, L. (*DC. l. c.*;—*W. and A. l. c.*)

1. *precatorius*, L. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 257; *J. Grah. Cat. B. pl. p.* 51.;—*Gärtn. fr. p.* 328, *t.* 151. *f.* 5.—A. pauciflorus, *Desv.*—A. minor, *Desv.*;—*Rheed.* 8, *t.* 39;—*Rumph.* 5, *t.* 32.) ♄ ◡ Both Peninsulas of India. Moluccas. Bengal, (Serampore.) Assam. Fl. largish, C. S.; fr. H. S.

   α. erythrospermus. Seeds red, with a black eye; flowers rose-coloured. কুঁচ *Koonch.*

   β. leucospermus. Seeds white, with a black eye; flowers white. শ্বেত কুঁচ *Shwet-koonch.*

   γ. melanospermus. Seeds black, with a white eye; flowers white. কাল কুঁচ *Kalo-koonch. Seeds* generally used by the Native jewellers as a weight, almost uniformly weighing exactly one grain, troy.—*Root* employed as a substitute for liquorice, being sweet and mucilaginous. (*Roxb.*)

2. *pulchellus*, Wall. (*Cat.*) ♄ ◡ Khassya Mountains. Nepal. Fl. purple, largish, C. S.; fr. H. S.

KENNEDYA, Vent.

1. *monophylla*, Vent. (*Malm.—B. Cab.* 8. 758)

   β. longeracemosa, Lindl. (*B. R.* 16. *t.* 1336.—Glycine bimaculata, *Curt. B. M.* 8, *t.* 263.) N. Holland.

2. *prostrata*, R. Br. (*Hort. Kew. ed. alt.* 4. 299.—Glycine coccinea, *Curt. B. M.* 8, *t.* 270.) N. S. Wales. C. S.

RHYNCHOSIA, Lour. (*W. and A. pr.* 1, *p.* 237.)

1. *medicaginea*, DC. (*pr.* 2, *p.* 386;—*W. and A. o. c. p.* 238.—Dolichos medicagineus, *Lam.*;—*Roxb. fl. ind.* 3, *p.* 315; excl. sp. char. and descript.—Dolichos scarabæoides, *Roxb. l. c.* excl. syn.—*Burm. zeyl. t.* 84, *f.* 2.) ♂ ◡ Travancore. Delhi, Banks of the Jumna. Fl. small, yellow. In H. C. G. fl., and fr. C. S. (*Roxb.*)

WISTARIA, Nutt.

1. *sinensis*, DC. (*pr.* 2, *p.* 390.—Glycine sinensis, *Sims. B. M.* 46. *t.* 2083. *B. Reg.* 8. *t.* 650.—*B. Cab.* 8. *t.* 773.) ⌒ China. H. S.

FLEMINGIA, Roxb. (*DC. pr.* 2, *p.* 351;—*W. and A. pr.* 1, *p.* 241.)

1. *stricta*, Roxb. (*Corom.* 3, *t.* 248;—*fl. ind.* 3, *p.* 342;—*DC. l. c.*;—*W. and A. l. c.*;—*Wight. icon.* 2, *t.* 329.) L. ♄ Circars. Tavoy. Fl. middle-sized, streaked with yellow, red and violet, R. and C. S.; fr. C. S.

2. *congesta*, Roxb. (*fl. ind.* 3, *p.* 340;—*DC. pr.* 2, *p.* 351;—*W. and A. pr.* 1, *p.* 241;—*Wight. icon.* 2, *t.* 390.—Rhynchosia crotalarioïdes, *DC. pr.* 2, *p.* 387.—Crotalaria macrophylla, *Willd.*) বড় সাৱপানী *Buro-salpanee.* ♄ Both Peninsulas of India. Bengal, (Soonderbuns, Calcutta, Serampore.) Assam. Fl. smallish, pale rose, crimson-veined, R. S.; fr. C. S.
3. *semialata*, Roxb. (*Corom.* 2, *t.* 249;—*fl. ind.* 3, *p.* 340;—*DC. pr.* 2, *p.* 351;—*W. and A. pr.* 1, *p.* 241. *annot.*—*Wight. icon.* 2, *t.* 326.) ♄ Both Peninsulas of India. Morung and Khassya Mountains. Assam. Nepal. Fl. smallish, rose, streaked with green, R. and C. S.; fr. C. S.
4. *procumbens*, Roxb. (*fl. ind.* 3, *p.* 338;—*J. Grah. Cat. B. pl. p.* 51;—*Wight. icon.* 2, *t.* 408.) ♄ Mahableshwar. Mountains north of Oude. Fl. small, purple. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)
5. *prostrata*, Roxb. jun. (*fl. ind.* 3, *p.* 338.) ♄ China. Fl. small, pale yellowish-purple, Nov.; fr. C. S.
6. *nana*, Roxb. (*fl. ind.* 3, *p.* 339;—*DC. pr.* 2. *p.* 351;—*W. and A. pr.* 1, *p.* 242, *annot.*—*Wight. icon.* 2, *t.* 389.) ♄ Banks of the Ganges near Hurdwar. Fl. small, pale greenish rose, H. S.
7. *lineata*, Roxb. (*fl. ind.* 3, p. 341;—*DC. pr.* 2, *p.* 351;—*W. and A. pr.* 1, *p.* 242.—*J. Grah. Cat. B. pl. p.* 51;—*Wight. icon.* 2, *t.* 327.) Hedysarum lineatum, *Burm. ind. t.* 513, *f.* 1.—Lespedeza lineata, *Pers.*—Onobrychis lineata, *Desv.*) ♄ Coromandel. Guzerat. Prome. Malloon. Khassya Mountains. Assam. Fl. small, greenish white purple, R. S.; fr. C. S.
8. *strobilifera*, R. Br. (*DC. pr.* 2, *p.* 341;—*W. and A. pr.* 1, *p.* 243;—*J. Grah. Cat. B. pl. p.* 51;—*Wight. icon.* 1, *t.* 267;—*B. Reg.* 8, *t.* 617.—Hedysarum strobiliferum, *L.*;—*Roxb. fl. ind.* 3, *p.* 350.—Zornia strobilifera, *Pers.*—*Linn. fl. zeyl. t.* 3.) ♄ Ceylon. Coromandel. Common on the Ghauts, and throughout the hilly parts of the Concan, generally growing in patches. Penang. Khassya Mountains. Assam. Fl. small, greenish white, somewhat streaked with red, R. and C. S.; fr. C. S.
9. *bracteata*, Wight. (*icon.* 1, *t.* 268.—Hedysarum bracteatum, *Roxb. fl. ind.* 3, *p.* 351.) ♄ Dinagepore. Fl. minute, rose, R. and C. S.; fr. C. S.
10. *Chappar*, Buch. ♄ Lalgunj. Deyra-Dhoon. Taong-Dong. In H. C. G.

PHASEOLUS, L. (*DC. pr.* 2, *p.* 390.;—*W. and A. pr.* 1, *p.* 243.)

1. *Caracalla*, L. (*DC. l. c.*;—*B. Reg.* 4, *t.* 341.;—*J. Grah. Cat. B. pl. p.* 51.) ♄ S. America. Introduced at Goa by the Portuguese. Fl. large, lilac, sweet-scented, C. S.
2. *vulgaris*, L. (*DC. pr.* 2, *p.* 392;—*W. and A. pr.* 1, *p.* 342;—*Roxb. fl. ind.* 3, *p.* 287;—*J. Grah. Cat. B. pl. p.* 51.) *French Bean. Common Kidney Bean. Haricot.* ⊙ ⌒ Cashmere. Cabul. Cultivated in gardens. Fl. middle-sized, white, C. S.; fr. C. S. and H. S.

3. *nanus*, L. (*W. and A. pr.* 1, *p.* 243;—*Roxb. fl. ind.* 3, *p.* 291.—P. compressus, *DC. pr.* 2, *p.* 392.—P. romanus, *Savi.*—P. saponaceus, *Savi.*;—*DC. o. c. p.* 393.) *Common Dwarf Kidney Bean.* ⊙ Native place unknown. Cultivated. Fl. smallish, white, and fr. C. S.
4. *lunatus*, L. (*DC. pr.* 2, *p.* 393;—*W. and A. pr.* 1, *p.* 244;—*Roxb. fl. ind.* 3, *p.* 287;—*J. Grah. Cat. B. pl. p.* 51.—P. maximus, *Sloane. jam. t.* 111, *f.* 1;—*Roxb. fl. ind.* 3, *p.* 288. excl. *No.* 3.) *Lima Bean. Country French Beans. Country Haricot.* ♂ ⌒ Peninsula of India. Dapoory. Bengal. Fl. small, greenish, C. S.; fr. H. S. Six varieties cultivated for the table. The Natives rarely use any part of the plant, nor have they any name for it.
5. *multiflorus*, Willd. (*DC. pr.* 2, *p.* 329;—*W. and A.* 1, *p.* 244.)
   a. coccineus, (P. vulgaris. β. coccineus, L.—P. indicus flore coccineo seu purpureo, *Moris. hist.* 2, *sect.* 2, *cap.* 2, *par.* 1, *n.* 4, *p.* 69, *t.* 5, *f.* 4.) Scarlet runner. ⌒ ⊙ H. S. 1842.
6. *rostratus*, Wall. (*pl. as. rar.* 1, *t.* 63;—*W. and A. pr.* 1, *p.* 244;—*J. Grah. Cat. B. pl. p.* 51;—*Wight. icon.* 1, *t.* 34.—P. alatus, *Roxb. fl. ind.* 3, *p.* 288; not L.;—*Rheed* 8, *t.* 42). বন বর্বতি *Bun-burbuti.* ♃. ⌒ Coromandel. Common throughout the Concans. Bengal, (Serampore.) Fl. large, deep rose-purple, C. S.; fr. H. S. *Roots* tuberous, eaten by the Natives. (*J. Grah.*)
7. *semierectus*, L. (*DC. pr.* 2, *p.* 396;—*B. Reg.* 9, *t.* 743.;—*Roxb. H. B. p.* 55.) ⊙ ⌣ W. Indies. Fl. large, red. In H. C. G. fl. and fr. Nov. and Dec. (*Roxb.*)
8. *fuscus*, Wall. (*pl. as. rar.* 1, *t.* 6.) ♃. ⌒ Prome. Fl. middle-sized, pale-yellow, variegated with brown, heavy smelling, whole year; fr. C. S.
9. *dolichoïdes*, Roxb. (*fl. ind.* 3, *p.* 290.) ♃. ⌒ Chittagong. Fl. large, dark-purple. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
10. *calcaratus*, Roxb. (*fl. ind.* 3, *p.* 289;—*W. and A. pr.* 1, *p.* 245.) ♂ ⌒ Cultivated in Mysore. Fl. large, yellow. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)
11. *minimus*, Roxb. (*fl. ind.* 3, *p.* 290.) ⊙ ⌒ China. Fl. small, greenish-yellow, and fr. Nov. and Dec. (*Roxb.*)
12. *sublobatus*. Roxb. (*fl. ind.* 3, *p.* 288.) ঘোড়া মুগ *Ghora-moog.* ⊙ ⌒ Bengal, (Serampore.) Fl. largish, greenish-yellow, and fr. C. and H. S.
13. *Mungo*, L. (*DC. pr.* 2, *p.* 395;—*W. and A. pr.* 1, *p.* 245;—*Roxb. fl. ind.* 3, *p.* 292;—*J. Grah. Cat. B. pl. p.* 51.—P. hirtus, *Retz.*) হালি মুগ *Hali-moog. Green Gram.* ⊙ Native place unknown. Cultivated by the Natives, to whom the grain is of great importance, especially in times of famine. Fl. largish, greenish-yellow, and fr. C. S.
   β. *melanospermus*; (Phaseolus Max.; *Roxb. fl. ind.* 3, *p.* 295;—L. ?—*Rheed.* 8, *t.* 50,) কাল মুগ *Kalo-moog. Black Gram.* ⊙ Native place unknown. Cultivated by the Natives, but not so much as the Green Gram. Fl. largish, greenish-yellow, and fr. C. S.

14. *Roxburghii*, W. and A. (*pr.* 1, *p.* 246.—P. radiatus, *Roxb. fl. ind.* 3, *p.* 296 ; not. L.) মাশ কলায় *Mash-kulay*. ⊙ Circars. Travancore. Malabar. Bengal, (Serampore,) in a cultivated state only. Fl. middle-sized, yellow, and fr. C. S. This species is the most esteemed of all the leguminous plants, and bears the highest price. Of the meal the Natives make bread for many of their religious ceremonies. Its produce is about thirty-fold. Cattle eat the straw of this species, whereas they reject that of the preceding one.
   α. *chlorospermus*. Seeds green.
   β. *melanospermus*. Seeds black, small.
15. *trilobus*, Ait. (*Roxb. fl. ind.* 3, *p.* 298 ;—*W. and A. pr.* 1, *p.* 246 ;—*Wight. icon.* 1, *t.* 94 ;—*J. Grah. Cat. B. pl. p.* 52.—Dolichos trilobatus, *L.* ;—*DC. pr.* 2, *p.* 399 ;—*Burm. ind. t.* 50, *f.* 1.—Glycine triloba, *L.*—Dolichos stipulaceus, *Lam.*) মুগানী *Mooganee*. 4. Coromandel. Common in the Deccan and Bengal, (Serampore.) Fl. small, yellow, and fr. C. S. Cultivated, in which state it was only found by Dr. Roxburgh. Seeds gathered and eaten by the poor. Affords good fodder.
16. *aconitifolius*, Jacq. (*obs.* 3, *p.* 2, *t.* 52 ;—*DC. pr.* 2, *p.* 394 ;—*Roxb. fl. ind.* 3, *p.* 299 ;—*W. and A. pr.* 1, *p.* 247 ;—*J. Grah. Cat. B. pl. p.* 53.—Dolichos dissectus, *Lam.*) মুট *Moot*. ⊙ Coromandel. Oude. Cultivated in the Deccan, Goozerat and the Upper Provinces as fodder. Fl. small, yellow, and fr. C. S.
17. *aureus*, Roxb. (*fl. ind.* 3, *p.* 297.) সোনা মুগ *Sona-moog*. ⊙ Bengal, (Serampore) in a cultivated state only. The seeds form an article of diet with the Natives, and are to be found in every bazar. (*Roxb.*)
18. *torosus*, Roxb. (*fl. ind.* 3, *p.* 298.) শ্বেত মাশ *Shwet-mash*. ⊙ Cultivated in Nepal. Fl. sulphur. In H. C. G. fl. and fr. C. S. (*Roxb.*)
19. *glaber*, Roxb. (*fl. ind.* 3, *p.* 291.) ⊙ Mauritius, where it is cultivated under the name of *Lentille Creole*. Fl. large, bright, yellow, R. and C. S. ; fr. Feb.
20. *angustifolius*, Roxb. (*H. B. p.* 55.) ⊙ China? In H. C. G. fl. R. S. ; fr. C. S. (*Roxb.*) If this is not the same with P. angustifolius, Grah. (*Wall. Cat.*) Mussooree, Nepal, the latter name must be altered.

Soja, Mönch. (*DC. pr.* 2, *p.* 396 ;—*W. and A. pr.* 1, *p.* 247.)

1. *hispida*, Mönch. (*DC. l. c.* ;—*W. and A. l. c.* ;—*J. Grah. Cat. B. pl. p.* 52.—S. japonica, *Savi.*—Dolichos Soja, *L.* ; *Jacq. icon. rar. t.* 145 ;—*Roxb. fl. ind.* 3, *p.* 314.—*Kämpf. amoen. p.* 837, *t.* 838.) গার কলাই *Gari-kulay*. ⊙ Japan. Moluccas. Nepal. Taong-Dong. Cultivated in gardens. Fl. smallish, reddish-purple, and seeds black, C. S. Seeds in Japan commonly eaten in soups. (*G. Don.*)
   β. *leucosperma*. Seeds white ; flowers yellow.

Dolichos, L. (*DC. pr.* 2, *p.* 396 ;—*W. and A. pr.* 1, *p.* 247.)

1. *glutinosus*, Roxb. (*fl. ind.* 3, *p.* 312 ;—*W. and A. o. c. p.* 248.—Glycine viscosa, *Roth.*—Rynchosia viscosa, *DC. pr.* 2, *p.* 387.)

শিম বাত্রাজী *Shim-batrajee.* ⊙ ⌒ Peninsula of India. Bengal, (Serampore.) Fl. largish, yellow, and fr. C. S.

2. *uniflorus,* Lam. (*DC. pr.* 2, *p.* 398;—*W. and A. pr.* 1, *p.* 248;—*J. Grah. Cat. B. pl. p.* 52.—D. biflorus, *Roxb. fl. ind.* 3, *p.* 313; not L.) কুলথ কলাই *Kooltho-kulay.* ⊙ ⌒ Coromandel, where it is chiefly found in a cultivated state, and called *Horse-gram plant.* Also cultivated in the Deccan and Bengal, (Serampore.) Fl. small, sulphur, and fr. C. S. Seeds grey. Produce about sixty-fold in a good soil and favorable season.

β. *melanospermus.* Seeds jet black.

Seeds of both varieties are employed on the Coast of Coromandel promiscuously to feed cattle, and in times of scarcity, as an article of food among the Natives. Cattle are fond of the straw. (*Roxb.*)

3. *falcatus,* Klein. (*DC. pr.* 2, *p.* 398;—*W. and A. pr.* 1, *p.* 249;—*Roxb. fl. ind.* 3, *p.* 311, excl. syn. Pluk. and Lour.—*J. Grah. Cat. B. pl. p.* 52.) ♃ ⌒ Peninsula of India. Fl. large, bluish purple. In H. C. G. fl. and fr. Jan. and Feb. (*Roxb.*)

4. *pilosus,* Roxb. (*fl. ind.* 3, *p.* 312;—*DC. pr.* 2, *p.* 397;—*W. and A. pr.* 1, *p.* 249.) ঠাকরি কলায় *Takuri-kulay.* ♃ ⌒ Circars. Travancore. Bengal, (Serampore.) Prome. Nepal. Fl. large, blue, R. S.; fr. C. S. Cattle eat the straw of this plant. (*Roxb.*)

5. *sinensis,* L. (*W. and A. pr.* 1, *p.* 250. excl. omnibus syn. præter Catjang.) বর্বতি *Burbuti.* ⊙ ⌒ Commonly cultivated. Fl. largish, R. S.; fr. C. S.

α. *eccremocarpus.* (D. sinensis, *DC. pr.* 2, *p.* 399;—*Roxb. fl. ind.* 3, *p.* 302, excl. D. sesquipedalis, L.;—*B. M.* 48, *t.* 2232;—*J. Grah. Cat. B. pl. p.* 52;—*Rumph.* 5, *t.* 134.) Fl. lilac-purplish; fr. pendulous.

αα. *leucospermus.* Seeds white. Most esteemed for the table.

ββ. *phœospermus.* Seeds brown.

β. *orthocarpus.* (D. tranquebariensis, *Jacq. hort. vind.* 3, *t.* 70;—*DC. pr.* 2, *p.* 400.—D. Catjang, *Roxb. fl. ind.* 3, *p.* 303;—not L.—*Rheed.* 8, *t.* 41 ?) Fl. pale blue, greenish yellow; fr. erect.

αα. *leucospermus.* Seeds white.

ββ. *phœospermus.* Seeds brown.

γγ. *melanospermus.* Seeds black.

6. *vexillatus ?* Kth. (*DC. pr.* 2, *p.* 339.) Fl. pale blue. S. America, R. S. 1840.

7. *unguiculatus,* Jacq. (*Hort. vind.* 1, *t.* 23;—*DC. pr.* 2, *p.* 400;—*Roxb. H. B. p.* 55.) ⊙ ⌒ Barbadoes. In H. C. G. fl. and fr. C. S. (*Roxb.*)

8. *gangeticus,* Roxb. (*fl. ind.* 3, *p.* 310.) ♂ ♃ ⌒ Banks of the Ganges. Fl. large, yellow. In H. C. G. fl. and fr. whole year. (*Roxb.*) This species we have not seen. In Wall. Cat. it is only marked: "Hb. Roxb." The Bengalee name, *bun-burbuti,* is by the Natives here applied only to P. rostratus, Wall.

9. *phaseoloïdes*, Roxb. (*fl. ind.* 3, *p.* 316.) ♃. ◡ China. Fl. largish violet. In H. C. G. fl. Nov. and Dec.; fr. Jan. and Feb. (*Roxb.*)

10. *hexandrus*, Roxb. (*H. B. p.* 55.) Silhet. ♄ ⌒ In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

11. *azureus*, Roxb. (*H. B. p.* 55.) Silhet. ♃. ∽ In H. C. G. fl. Oct. and Nov.; fr. C. S. (*Roxb.*)

LABLAB, Adans. (*DC. pr.* 2, *p.* 401;—*W. and A. pr.* 1, *p.* 250.)

1. *vulgare*, Savi. (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 52;—*Wight. icon.* 1, *t.* 57, 203.—Dolichos Lablab, *L.*—*Roxb. fl. ind.* 3, *p.* 305.) ☉ or ♃. ⌒ Fl. and fr. C. S. Commonly cultivated in the Moluccas, both Peninsulas of India. Ceylon. Bengal, (Serampore.) Assam, &c.

α. *dumetorum.*—(Dolichos spicatus, *Kön.*—*Rumph.* 5, *t.* 141, *f.* 1.) বন শিম *Bun-shim.* Common about Serampore. Fl. smallish, purple. Seeds dark grey, mottled. Not cultivated.

β. *sepiarium.*—In hedges, near Samulcota. Differs from α in being very downy. Fl. red. Seeds dark grey, mottled. Not cultivated.

γ. *Annapa*; Roxb.—Coromandel. Whole plant of a heavy disagreeable smell. Much cultivated on the Coast, and yields in a good soil about forty-fold. The seeds bear a low price, compared to most other sorts of grain, and are much eaten by the poorer classes, particularly when rice is dear. They are not palatable, but reckoned wholesome substantial food. Cattle are also fed with the seed, and greedily eat the straw. (*Roxb.*)

δ. *albiflorum*, (Dolichos albus, *Lour.*—D. bengalensis, *L.*—*Rumph.* 5, *t.* 37.) শ্বেত শিম *Shwet-shim.* Fl. smallish, white. Cultivated in gardens and supported by poles, often forming arbours about the doors of the poor Natives. The tender pods eaten like French beans; the seeds never. The plant has no disagreeable smell.

ε. *rubriflorum*; (*Rumph.* 5, *t.* 136.) জীয়া শিম *Jeea-shim.* Cultivated like the last, and much esteemed by the Natives. Fl. red.

ϱ. *purpurascens*; গুড়দল শিম *Goordal-shim.* Fl. large, purplish. A larger variety. Cultivated like ε. Legumes broader, with the seeds more remote than any of the other varieties.

η. *purpureum*, DC. (*pr.* 2, *p.* 401.—Dolichos purpureus, *Jacq. fragm.* 45, *t.* 55;—*B. Reg.* 10, *t.* 830;—*Smith exot. bot. t.* 71.—D. Lablab, *B. M.* 23, *t.* 896.) রক্ত শিম *Rukto-shim.* Stem and the large flowers purple. Pods deep purple.

2. *cultratum*, DC. (*pr.* 2, *p.* 402;—*W. and A. pr.* 1, *p.* 251.—Dolichos lignosus, *Roxb. fl. ind.* 3, *p.* 307; not L.—D. cultratus, *Thunb.*;—*Willd.*) ♃. ⌒ All the varieties of this species are cultivated during the cold season in the gardens and about the doors of the Natives, forming not only cool, shady arbours, but furnishing them with an excellent pulse for their curries, &c. in their tender pods. In short, adds Dr. Rox-

burgh, these and the four last mentioned cultivated varieties of L. vulgare, may be called the *kidney-beans of the Asiatics*.

α. *rectum ;* Pods straight ; seeds reddish ; flowers, white, large, পাঞ্চ শিম *Panch-shim.*

β. *falcatum minus ;* Pods falcate, size of the little finger ; flowers white, largish. বাঘনকো শিম *Baghonuko-shim.*

γ. *falcatum majus ;* Pods falcate, much longer than in β ; flowers purple. দুধ পিটলী শিম *Dood-pituli-shim.*

δ. *gladiatum, flore albo ;* Pods gladiate-clavate, length of the little finger. শাদা জামাই পলি শিম *Sada-jamaï-puli-shim.*

ε. *gladiatum, flore purpureo ;* Flowers reddish purple ; pods as in γ. পিটলী জামাই পলি শিম *Pitulee-jamaï-puli-shim.*

ρ. *macrocarpum ;* the largest of all. Fl. red ; pods 6-8 inches long ; seeds black with a white eye. গৈছি শিম *Gychi-shim.*

PACHYRRHIZUS, Rich. (*DC. pr.* 2, *p.* 402 ;—*W. and A. pr.* 1, *p.* 251.)

1. *angulatus, Rich.* (*DC. l. c. ;—W. and A. l. c. ;—J. Grah. Cat. B. pl. p.* 53.—Dolichos bulbosus, *L. ;—Roxb. fl. ind.* 3, *p.* 309 ;—*Rumph.* 5, *t.* 132.) শকর আলু *Shukur-aloo.* ♃ ⌒ S. America. Cultivated in India. Fl. largish, blue, R. and C. S. ; fr. Feb. and March. *Root* tuberous, like a turnip in consistence and taste, eaten by the Malays. No other part of the plant is used.

PSOPHOCARPUS, Neck. (*DC. pr.* 2, *p.* 403 ;—*W. and A. pr.* 1, *p.* 252.)

1. *tetragonolobus,* DC. (*l. c. ;—W. and A. l. c. ;—J. Grah. Cat. B. pl. p.* 52.—Dolichos tetragonolobus, *L. ;—Roxb. fl. ind.* 3, *p.* 305 ;—*Rumph.* 5, *t.* 133.) চারি কোণা শিম *Chari-kona-shim. Goa Bean. Chevaux de Frize Bean.* ⊙ ⌒ S. America ? Cultivated in India, and the Mauritius. In the latter place it is called *Pois carré.* Fl. large, blue, C. S. ; fr. Feb. and March. Pods used like French beans.

CANAVALIA, DC. (*pr.* 2, *p.* 403 ;—*W. and A. pr.* 1, *p.* 252.)

1. *gladiata,* DC. (*o. c. p.* 404 ;—*W. and A. o. c. p.* 253 ;—*J. Grah. Cat. B. pl. p.* 52.—Dolichos gladiatus, *Jacq. icon. rar.* 3, *t.* 560 ;—*Roxb. fl. ind.* 3, *p.* 300. excl. syn. Sloane. D. ensiformis, *Lour.* ex. pte. ;—L. ?—*Rheed.* 8, *t.* 44 ;—*Rumph.* 5, *t.* 135, *f.* 1.) মাখন শিম *Makhun-shim.* ♃ ⌣ Fl. large, R. S. ; fr. C. S. Its half-grown pods afford a passable vegetable.

α. *erythrosperma, flore rubro.* Flowers and seeds red. রঙ্গ মাখন শিম *Rung-makhun-shim.* Cultivated.

β. *erythrosperma, flore albo.* Seeds red ; flowers white. ছোট শাদা মাখন শিম *Choto-sada-makhun-shim.* Cultivated.

γ. *leucosperma.* Flowers and large seeds white. বড় শাদা মাখন শিম *Buro-sada-makhun-shim.* Pods about two feet long, often twenty-seeded. This variety is considered the most wholesome of them all, and is extensively used at the tables of Europeans, as well as by the Natives of Silhet, where the plant is indigenous.

δ. *spodiosperma.* Seeds grey; flowers red. Pegu. Silhet. Not cultivated.

2. *virosa,* W. and A. (*pr.* 1, *p.* 253; excl. syn. Rumph.—*J. Grah. Cat. B. pl. p.* 53.—C. gladiata. β. *DC. pr.* 2, *p.* 404.—Dolichos virosus, *Roxb. fl. ind.* 3, *p.* 301.—D. ensiformis, *Lour.* ex. pte.—*Rheed.* 8, *t.* 45.) কাল শিম *Kalo-shim.* কাঠ শিম *Kat-shim.* ♂. ⌒ Cochin China. Peninsula of India. Bengal, (Serampore,) &c. Fl. large, rose purplish, R. S.; fr. C. S. Considered by the Natives a poisonous plant.

3. *obtusifolia,* DC. (*pr.* 2, *p.* 404;—*W. and A. pr.* 1, *p.* 253;—*J. Grah. Cat. B. pl. p.* 53.—Dolichos obtusifolius, *Lam.*—D. rotundifolius, *Vahl.;—Roxb. fl. ind.* 3, *p.* 302;—*Rheed.* 8, *t.* 43.) ♂. ⌒ Coromandel. The Concans. Fl. large, bluish rose, R. S.; fr. C. S.

4. *obcordata,* (Dolichos obcordatus, *Roxb. fl. ind.* 3, *p.* 303.) ♃. ⌒ China. Fl. large, red violet, odoriferous, R. S.; fr. C. S.

5. *mollis,* Wight and Arn. ♃. Neelgherries. Dindygul.

6. *incana,* Wall. (*Buchanan.* 1814.)

7. *bracteata,* Wall. Goruckpur. Mountains near Ava.

Mucuna, Adans, (*DC. pr.* 2, *p.* 404;—*W. and A. pr.* 1, *p.* 253.)

1. *monosperma,* (*DC. o. c. p.* 406;—*W. and A. o. c. p.* 254;—*J. Grah. Cat. B. pl. p.* 53;—*Wight. icon.* 1, *t.* 35;—*Hook. Bot. Misc.* 2, *p.* 346; *suppl. t.* 12.—Carpopogon monospermum, *Roxb. fl. ind.* 3, *p.* 283.) ♃. ⌒ Coromandel. Bombay. Khassya Mountains. Assam. Kheree jungle. Deyra-Dhoon. Fl. large, dark purple, C. S.; fr. H. S. Produces the Brahminee vegetable called *Negro Bean.* (*Dr. Lush.*) Cattle do not eat it.

2. *atropurpurea,* DC. (*pr.* 2, *p.* 406;—*W. and A. pr.* 1, *p.* 254;—*J. Grah. Cat. B. pl. p.* 53.—Carpopogon atropurpureum, *Roxb. fl. ind.* 3, *p.* 287.) ♃. ⌣ Courtallum, Travancore. S. Concan. Fl. large, dark-purple, Feb. and March; fr. R. S.

3. *gigantea,* DC. (*pr.* 2, *p.* 404;—*W. and A. pr.* 1, *p.* 254;—*Hook. Bot. Misc.* 2, *p.* 357; *suppl. t.* 14;—*J. Grah. Cat. B. pl. p.* 53.—Dolichos giganteus, *Willd.*—Carpopogon giganteum, *Roxb. fl. ind.* 3, *p.* 287;—*Rheed.* 8, *t.* 36.) ♃. ⌒ Negapatam. The Concans. Soonderbuns. Fl. large, sulphur-coloured, R. and C. S.; fr. H. S.

4. *pruritus,* Hook. (*Bot. Misc.* 2; *suppl. t.* 13;—*W. and A. pr.* 1, *p.* 255;—*J. Grah. Cat. B. pl. p.* 53.—Carpopogon pruriens, *Roxb. fl. ind.* 3, *p.* 283; excl. syn. L.—*Rheed.* 8, *t.* 35;—*Rumph.* 5, *t.* 142.) আলকশী *Alkushee. Cow Itch.* ⊙ ⌒ Moluccas. Both Peninsulas of India. Bengal, (Serampore.) Assam. Kheree jungle. Deyrah-Dhoon. Fl. large, dark purple, C. S.; fr. H. S.

5. *utilis,* Wall. (*Wight. icon.* 1, *t.* 280.) *Pois noir de Bourbon.* ⊙ ⌒ Extensively cultivated in the Mauritius and Van Diemen's Land as a table vegetable, and also as fodder for cattle. Fl. very large, dark purple blackish, R. and C. S.; fr. Feb. and March. Certainly dif-

ferent from *No.* 4, which has been cultivated in the garden here for many years, without its pods becoming less stinging.

6. *capitata*, W. and A. (*pr.* 1, *p.* 255, and not DC. who has omitted the plant.—Carpopogon capitatum, *Roxb. fl. ind.* 3, *p.* 284, as to the cultivated plant.) ⊙ ⌒ Native place unknown. In H. C. G.?

7. *nivea*, Buch. (*DC. pr.* 2, *p.* 406;—*W. and A. pr.* 1, *p.* 255. *annot.*—Carpopogon niveum, *Roxb. fl. ind.* 3, *p.* 285.) খামাচ *Khamach.* ⊙ ⌣ Bengal, (Serampore.) Fl. very large, white, R. S.; fr. C. S. By removing the exterior velvety skin of the large, fleshy, tender pods, they are, when dressed, a most excellent vegetable for the table, and the full grown beans are scarcely inferior to the large garden beans of Europe. (*Roxb.*)

8. *imbricata*, DC. (*pr.* 2, *p.* 406.—Carpopogon imbricatum, *Roxb. H. B. p.* 54.) ♄ ⌒ Silhet. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

9. *bracteata*, DC. (*pr.* 2, *p.* 406.—Carpopogon bracteatum, *Roxb. H. B. p.* 54.) ♄ ⌒ Chittagong. In H. C. G. fl. C. S. (*Roxb.*)

CANTHAROSPERMUM, W. and A. (*pr.* 1, *p.* 255.)

1. *pauciflorum*, W. and A. (*l. c.*—Cajan scarabæoïdes, *Pet. Th.*—Dolichos scarabæoides, *L.*;—*Roxb. fl. ind.* 3, *p.* 315, excl. sp. char. and descript.—D. medicagineus, *Roxb. l. c.* excl. syn.—Rynchosia? scarabæoides, *DC. pr.* 2, *p.* 387.) বানর কলায় *Banur-kulay.* ♂ ⌒ Madagascar. Bourbon. Mauritius. Ceylon. Peninsula of India, Bengal, (Serampore,) Khassya and Monghir Hills. Assam. Mussoorie. Nepal. Fl. small, yellow, R. and C. S.; fr. C. S. Eaten by cattle.

CAJANUS, DC. (*pr.* 2, *p.* 406;—*W. and A. pr.* 1, *p.* 256.)

1. *indicus*, Spreng. (*syst.* 3, *p.* 248;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 53.) অড়র *Urur.* ♄ Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Assam. Fl. largish, and fr. C. S. Cultivated. The seeds (দাল *dal*) are much esteemed by the Natives, who hold them third in rank among the leguminous seeds. Cattle greedily eat the tender parts of the plant, whether green or dry; the dry wood is excellent fuel, and well adapted for producing fire by friction.

   α. *flavus*; (C. flavus, *DC. l. c.*—Cytisus Cajan, *L.*;—*Jacq. Obs.* 1, *t.* 1;—*Roxb. fl. ind.* 3, *p.* 325. excl. syn. Rheed.)

   β. *bicolor*; (C. bicolor, *DC. l. c.*—Cytisus Cajan, β. *Lam.*—C. Pseudo-cajan, *Jacq. hort. vind.* 2. *t.* 119.—*Rheed.* 6, *t.* 13.)

CYLISTA, Ait. (*DC. pr.* 2, *p.* 410;—*W. and A. pr.* 1, *p.* 259.)

1. *scariosa*, Ait. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. Corom.* 1, *t.* 92; *fl. ind.* 3, *p.* 320;—*J. Grah. Cat. B. pl. p.* 54.) ♄ ⌒ Mountainous parts of the Circars. Common on the ghauts and hilly parts of the Concan. Abundant in Kennery jungles. Salsette. Fl. middle-sized, yellow, R. and C. S.; fr. C. S.

CYANOSPERMUM, W. and A. (*pr.* 1, *p.* 259.)

1. *tomentosum*, W. and A. (*o. c. p.* 260;—*Wight. ill. t.* 84.—Cylista tomentosa, *Roxb. Corom.* 3, *t.* 221;—*fl. ind.* 3, *p.* 319;—*DC. pr.* 2,

p. 410;—*J. Grah. Cat. B. pl. p.* 54.) ♄ ⌒ Dindigul. Mysore. Fl. middle-sized, sulphur, R. and C. S.; fr. C. S.

ERYTHRINA, L. (*DC. pr.* 2, *p.* 410;—*W. and A. pr.* 1, *p.* 260.)

1. *Crista galli*, L. (*Lam. encycl.* 2, 391, excl. syn. Jacq.—*Sweet. fl. gard. Ser.* 3, No. 214, not B. Reg. nor B. Cab. which is E. laurifolia, Jacq.—*Paxt. B. M.* 3, 175.) Brazil. Fl. C. S.
2. *herbacea*, L. (*DC. o. c. p.* 411;—*B. M.* 22, *t.* 877;—*Roxb. H. B. p.* 53.) ♃. Sandy fields and forests of Carolina, Florida and Mississippi. Fl. large, crimson, C. S.; fr. H. S.
3. *resupinata*, Roxb. (*Corom.* 3, *t.* 220;—*fl. ind.* 3, *p.* 257.) ♃. Cawnpore. Fl. largish, bright scarlet, C. S.; fr. H. S.
4. *caffra*, Thumb. (*DC. pr.* 2, *p.* 412;—*B. Reg.* 9, *t.* 736;—*B. M.* 50, *t.* 2431;—*Roxb. H. B. p.* 53.) ♄ S. Africa. Fl. large, greenish dull red, April; fr.
5. *arborescens*, Roxb. (*fl. ind.* 3, *p.* 256;—*Corom.* 3, *t.* 219;—*DC. pr.* 2, *p.* 412.) ♄ Nepal. Fl. large, bright scarlet. In H. C. G. fl. Sept. and Oct. (*Roxb.*)
6. *indica*, Lam. (*DC. pr.* 2, *p.* 412;—*W. and A. pr.* 1, *p.* 260;—*Roxb. fl. ind.* 3, *p.* 249;—*Wight. icon.* 1, *t.* 58;—*J. Grah. Cat. B. pl. p.* 54.—E. Corallodendron, β. *L.*—*Rheed.* 6, *t.* 7;—*Rumph.* 2, *t.* 76.) পালিতা মন্দার *Palita-mundar*. ♄ Coromandel. Common throughout the Concans. Amherst. Martaban. Bengal, (Serampore.) Assam. Fl. large, greenish dark purple scarlet, Feb. and March; fr. June and July. *Wood* light and soft, much used by toy-makers; also generally employed for constructing Catamarans. (*Wight.*) The tree is used to support the black pepper vine, to protect young coffee trees, &c.
7. *stricta*, Roxb. (*fl. ind* 3, *p.* 251;—*W. and A. pr.* 1, *p.* 260;—*J. Grah. Cat. B. pl. p.* 54.) ♄ Travancore. Elephanta. The Ghauts. Fl. large, greenish dark purple scarlet, March; fr. May.
8. *suberosa*, Roxb. (*fl. ind.* 3, *p.* 253;—*W. and A. pr.* 1, *p.* 260;—*J. Grah. Cat. B. pl. p.* 54.) ♄ Circars. Pretty common in the Mahal districts east of the Ghauts. Goozeerat. Kandesh. Fl. large, whitish rose scarlet, March and April; fr. 0.
9. *sublobata*, Roxb. (*fl. ind.* 3, *p.* 254;—*W. and A. pr.* 1, *p.* 261.) L. ♄ Circars. Fl. like those of the preceding species. Introduced into H. C. G.
10. *ovalifolia*, Roxb. (*fl. ind.* 3, *p.* 254;—*Wight. icon.* 1, *t.* 247.) হরি কাঁকড়া *Huri-kankra*. L. ♄ Bengal, (Serampore.) Fl. very large, scarlet, variagated with orange, sulphur and dark purple, Feb.; fr. April.
11. *glauca*, Willd. (*DC. pr.* 2, *p.* 413.) L. ♄ Caracas. Cumana. Fl. large, scarlet, Feb.; fr.

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* *Abrus fruticulosus*, Hb. Madr. Wight. icon. 1, t. 33. ♄ ◡ Palamcottah. Malabar.—*Sweetia longifolia*, DC. ♄ ◡ Hotter parts of America.

—*S. filiformis*, DC. ♄ ◡ ibid.—*Teramnus uncinatus*, Swz. ♄ ◡ Jamaica.—*T. volubilis*, Swz. ♄ ◡ Jamaica.—*Amphodus ovatus*, Lindl.; B. Reg. 13, t. 1101. ♄ ◡ Trinidad.—*Rhynchosia caribæa*, DC. (Glycine caribæa, Jacq.; B. Reg. 4, t. 275.) ♄ W. Indies.—*R. punctata*, DC. ♃ ◡ Cayenne.—*R. phaseoloïdes*, DC. (Glycine phaseoloïdes Swz.; B. M. 49, t. 2284.) ♄ ◡ Cayenne.—*R. macrophylla*, DC. ♄ ◡ Havannah.—*R. reticulata*, DC. ♄ ◡ Jamaica. St. Cruze.—*R. velutina*, W. and A. ♄ ◡ Negapatam.—*R. densiflora*, DC. ♄ ◡ Cunnawady hills. Taong-Dong. Segaen.—*R. rufescens*, DC. ♄ ◡ Gingie hills.—*R. suaveolens*, DC. ♄ Peninsula of India. Mussooree.—*R. cana*, DC. ♄ Dindygul hills.—*Wisteria Consequana*, Loud. (Glycine sinensis, B. Reg. 8, t. 650.) ♄ ◡ China.—*Apios tuberosus*, Mönch. (Glycine Apios, L.; B. M. 30, t. 1198.) ♃. Carolina.—*Phaseolus radiatus*, L. ⊙ Peninsula of India.—*Flemingia Wallichii*, W. and A. ♄ Peninsula of India.—*F. Grahamiana*, W. and A. ♄ Peninsula of India.—*F. Wightiana*, Grah. ♄ Peninsula of India.—*F. capitata*, Buch. Sukanaghur.—*F. Phursia*, Buch. Gorukpore.—*Nomismia nummularia*, W. and A.; Wight. icon. 1, t. 283. ♃. ◡ Peninsula of India.—*N. capitata*, W. and A.; Wight. icon. 1, t. 295. ♃. ◡ Peninsula of India.—*N. aurea*, W. and A. ♃. ◡ Peninsula of India.—*Pyrrhotrichia tuberosa*, Hb. Arn. ♃. Nepal. Khassya Mountains.—*Cyrtotropis carnea*, Wall. pl. as. rar. 1, t. 62.—*Vigna glabra*, Savi. ⊙ Georgia.—*Parochetus major*, Don.; Wight. icon. 2, t. 483. ♃. Neelgherries. Nepal.—*P. communis*, Buch.; Royle. ill. t. 35, f. 1. ♃. Nepal.—*P. oxalifolius*, Royle. Mussooree.—*Dioclea Jacquiana*, DC. ♄ ◡ Martinique.— *Mucuna hirsuta*, W. and A. Peninsula of India.—*M. urens*, DC. ♄ ◡ W. Indies.—*Atylosia Candollii*, W. and A. ♄ Neelgherries.—*A. Lawii*, Wight. icon 1, t. 93. ♄.—*A. major*, W. and A. ♄ Neelgherries.—*A rugosa*, W. and A. ♄ Neelgherries.—*Dunbaria ferruginea*, W. and A. ♄ ◡ Neelgherries.—*D. latifolia*, W. and A. ♄ ◡ Dindygul hills.—*Cyanospermum albiflorum*, W. and A. (Cylista albiflora, Sims; B. M. 43, t. 1859.) ♄ ◡ Mauritius. Bourbon.—*Erythrina carnea*, Ait.; B. Reg. 16, t. 1327. ♄ Vera Cruz.—*E. Corallodendron*, L. ♄ W. Indies.—*E. poianthes*, Brot.; B. Reg. 15, t. 1246. ♄ Native place unknown. Cultivated in Portugal. *E. speciosa*, Andr.; B. Reg. 9, t. 750. ♄ W. Indies.—*E. velutina*, Willd.; B. M. 60, t. 3227. ♄ Carracas. Cultivated at Madeira.—*E. Crista galli*, L.; B. M. 47, t. 2161. ♄ Brazil.—*Rudolphia volubilis*, Willd. ♄ ◡ St. Domingo.—*R. rosea*, Tussac. ♄ ◡ St. Domingo.

F. Dalbergieæ, Bronn.

(*DC. pr.* 2, *p.* 415;—*W. and A. pr.* 1, *p.* 261.)

Butea, Kön (*DC. pr.* 2, *p.* 414;—*W. and A. l. c.*)

1. *frondosa*, Roxb. (*Corom.* 1, *t.* 21;—*fl. ind.* 3, *p.* 244;—*DC. pr.* 2, *p.* 415;—*W. and A. l. c.*;—*Hook Bot. miscel.* 3, *p.* 102; *suppl. t.* 32;—*J. Grah. Cat. B. pl. p.* 54. Erythrina monosperma, *Lam.*—

Rheed 6, *t.* 16, 17.) পলাশ *Pulash.—Palasi.* Asiat. Res. 3, p. 469, and 4, p. 229. A venerable and holy tree; gave its name to the celebrated plain of "Plassey" in Bengal. ♄ Circars. Negapatam, Travancore. Common in the Concans, Kandesh and Goozerat. Bengal, (Serampore.) Chittagong. Silhet. Khassya Mountains. Assam. Saharunpore. Fl. very large, deep orange, Feb., March and April; fr. May and June.—From fissures and wounds in the bark issues, duriug the hot season, a beautiful red juice, soon hardening into a ruby coloured, brittle, astringent *gum*; which, however, soon looses its colour by exposure to the air. *Seeds* considered anthelminthic by the Natives. An infusion of the *flowers* of this and the next species dye cotton, previously prepared with alum, a bright yellow, which may be changed by an alkali into deep reddish-orange. (*Roxb.*)

2. *superba*, Roxb. (*Corom.* 1, *t.* 22;—*fl. ind.* 3, *p.* 247;—*DC. pr.* 2, *p.* 415;—*W. and A. pr.* 1, *p.* 261.) ♄ ◡ Circars. Kheree jungle. Deyra Dhoon. Fl. very large, deep orange, scarlet, March; fr. 0. The same gum exudes from fissures in the bark as in No. 1.
3. *parviflora*, Roxb. (*fl. ind.* 3, *p.* 248;—*DC. pr.* 2, *p.* 415;—*W. and A. pr.* 1, *p.* 261;—*J. Grah. Cat. B. pl. p.* 54;—*Wight icon.* 1, *t.* 210.) ♄ ◡ Rajamundree Circar. Hilly parts of the Concan. Assam. Oude. Fl. small, white, Nov. and Dec.; fr. April and May.
4. *sericophylla*, Wall. (*Cat.*) Tavoy. In H. C. G. fl.?

Meizotropis, (Colyx campanulatus, 4 dentatus. Corolla papilionacea, petalis inæqualibus; carinâ cæteris longiore. vexillo ovato, recurvo; alis incurvis. Stamina 9-1. Ovarium 2-ovulatum. Legumen Buteæ. Frutex inermis adpresse sericeo-pubescens. Folia 3-foliolata. Foliola racemique Buteæ.)

1. *buteæformis*, ♄ Jyntea Hills. alt. 3000 f. Fl. 10 lines long, scarlet, nearly the whole year; fr. C. S. Seeds received from Mr. W. Griffith.

Pongamia, Lam. (*DC. pr.* 2, *p.* 416;—*W. and A. pr.* 1, *p.* 262.)

1. *glabra*, Vent. (*Malm. t.* 28;—*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 55;—*Wight. icon.* 1, *t.* 59—Galedupa Indica, *Lam.*;—*Roxb. fl. ind.* 3, *p.* 239.—Robinia mitis, *L.*—Dalbergia arborea, *Willd.*;—*Rheed.* 6, *t.* 3.) করঞ্জা *Kurunja.* ♄ Coromandel. Common throughout the Concans, the Deccan. Amherst. Penang. Banks of the Saluen. Bengal, (Serampore.) Patna. Assam. Kheree jungle. Deyra-Dhoon. Fl. middle-sized, bright purple, H. S.; fr. C. S. *Wood* light, white, firm, used for a variety of economical purposes. *Leaves* eaten by cattle. *Seeds* yield by expression a fixed oil, which the Natives use externally in eruptive diseases.
2. *marginata*, Grah. (Galedupa marginata, *Roxb. fl. ind.* 3, *p.* 241.) ♄ ◡ Khassya Mountains. Fl. largish, rosy-white, April and May; fr. Sept. and Oct.
3. *uliginosa*, DC. (*pr.* 2, *p.* 416;—*W. and A. pr.* 1, *p.* 262;—*Hook. bot. misc.* 3, *p.* 301. (misprinted. P. religiosa) *suppl. t.* 41. (engraved

by mistake P. triphylla)—*J. Grah. Cat. B. pl. p.* 55.—Galedupa uliginosa, *Roxb. fl. ind.* 3, *p.* 243.—Robinia uliginosa, *Willd.*—Dalbergia heterophylla, *Willd.*;—*DC. pr.* 2, *p.* 417;—*Rheed* 8, *t.* 46.) পানী লতা *Panee-luta.* ♄ ◡ Both Peninsulas of India. Bengal. Soonderbuns, (Serampore.) Fl. middle-sized, pale rose-coloured. April and May; fr. R. S.

? 4. *sericea,* Vent. (*DC. pr.* 2, *p.* 416.) ♄ Java. In H. C. G. Fl. ?

5. *heterocarpa ?* Wall. MSS. ♄ ◡ Burma. Has not fl. here yet.

MILLETTIA, W. and A. (*pr.* 1, *p.* 263.)

1. *elliptica,* W. and A. (*l. c. annot.*—Galedupa elliptica, *Roxb. fl. ind.* 3, *p.* 242.—Pongamia elliptica, *Wall. pl. as. rar.* 3, *t.* 237;—*Wight icon.* 2, *t.* 420.) ♄ ◡ Amboyna. Malay Islands. Banks of the Attran. Fl. largish, pale rose, March; fr. Aug.

? 2. *piscidia,* W. and A. (*l. c.*—*Wight. icon.* 1, *t.* 86.—Galedupa piscidia, *Roxb. fl. ind.* 3, p. 240,) ♄ Khassya Mountains. Assam. Fl. largish, white. In H. C. G. fl. June and July; fr. C. S. (*Roxb.*) *Bark* and *flowers* powdered and thrown into water, intoxicate fish, which thus are easily taken. (*Roxb.*)

BRACHYPTERUM, Benth. (Sub-Genus of Dalbergia, *W. and A. pr.* 1, *p.* 264.)

1. *scandens,* Benth. (*Wight. icon.* 1, *t.* 275.—Dalbergia scandens, *Roxb. Corom.* 2, *t.* 192;—*fl. ind.* 3, *p.* 232;—*DC. pr.* 2, *p.* 417;—*W. and A. pr.* 1, *p.* 264;—*J. Grah. Cat. B. pl. p.* 55;—*Rheed.* 6, *t.* 22.) নোয়া লতা *Noa-luta.* ♄ ◡ Coromandel Coast. Travancore. Jungly tracts of the Concan. Mawul districts. Shores of the Bay of Siam. Chittagong, Bengal, (Serampore,) Assam. Fl. smallish, pale rose, fragrant, Aug.; fr, C. S. Well adapted for covering trellises.

DALBERGIA, L. (*DC. pr.* 2, *p.* 416;—*W. and A. pr.* 1, *p.* 264.)

1. *oojeinensis,* Roxb. (*fl. ind.* 3, *p.* 220;—*DC. l. c.*—*Wight. icon.* 2, *t.* 391.) L. ♄ Oude. Kheree jungle. Deyra-Dhoon. Kemaon, Sirmore. Fl. smallish, pale rose, sweet scented, H. S.; fr. Sept. and Oct. *Wood* highly valued for various purposes. Pillars for houses made of it. (*Roxb.*)

2. *latifolia,* Roxb. (*Corom.* 2, *t.* 113;—*fl. ind.* 3, *p.* 221;—*DC. pr.* 2, *p.* 416;—*W. and A. pr.* 1, *p.* 264;—*J. Grah. Cat. B. pl. p.* 55.) শ্বেত শাল *Shwet-sal.* L. ♄ Circar Mountains. S. Concan. Banks of the Kalinadi river, South Mahratta Country. Bengal, (Serampore,) Khassya Mountains. Assam. Fl. small, white, H. S.; fr. Sept. and Oct. *Wood* of the centre of the trunk and large branches, (*Black Wood,*) greenish or greenish-black, with lighter coloured veins running in various directions, heavy, sinking in water, close grained, admitting of the finest polish, and universally employed for making furniture. On the coasts of Coromandel and Malabar, the tree grows to an immense size, the trunk sometimes measuring fifteen feet in circumference, exclusive of the bark. In Bengal the wood is not so

heavy as on the coast, though equally beautiful, and very much used for furniture. (*Roxb.*)

3. *Sissoo*, Roxb. (*fl. ind.* 3, *p.* 223;—*DC. pr.* 2, *p.* 416;—*W. and A. pr.* 1, *p.* 264;—*J. Grah. Cat. B. pl. p.* 55.) শিশু *Sissoo*. L. ♄ Coromandel. Kennery jungles. Hills about Nagotnah. Goozerat. Bengal, (Serampore.) Assam. Kheree jungle. Deyra-Dhoon. Fl. small, yellowish-white, H. S.; fr. C. S. *Wood* very strong, greyish brown, with darker coloured veins, but not very durable. Supplies ship-builders in Bengal with crooked timbers and knees. (*Roxb.*)
4. *emarginata*, Roxb. (*fl. ind.* 2, *p.* 224.) *Andaman Sissoo*. L. ♄ Andaman Islands. Fl. small, white, fragrant. In H. C. G. fl. Sept.; fr. March. (*Roxb.*) A valuable timber tree. (*Roxb.*)
5. *frondosa*, Roxb. (*fl. ind.* 3, *p.* 226;—*DC. pr.* 2, *p.* 417;—*W. and A. pr.* 1, *p.* 266.) L. ♄ Ceylon. Courtallum. Travancore. Fl. small, bluish-white, May and June; fr. Aug. Sept. and Oct. *Timber* useful for many purposes. (*Roxb.*)
6. *paniculata*, Roxb. (*Corom.* 2, *t.* 114;—*fl. ind.* 3, *p.* 227;—*DC. pr.* 2, *p.* 417;—*W. and A. pr.* 1, *p.* 265;—*J. Grah. Cat. B. pl. p.* 55.) L. ♄ Circars. Colemala. Courtallum. Mawul districts, above the Ghauts. Moulmein. Assam. Oude. Fl. small, bluish-white. In H. C. G. fl. H. S.; fr. C. S. (*Roxb.*) *Wood* white, firm, but less useful than that of some of the other species.
7. *zeylanica*, Roxb. (*fl. ind.* 3, *p.* 228.) L. ♄ Ceylon. Trogla. In H. C. G. fl. May and June; fr. Aug. Sept. and Oct. (*Roxb.*)
8. *robusta*, Roxb. (*H. B. p.* 53;—*DC. pr.* 2, *p.* 417;—*Wight. icon.* 1, *t.* 244.—D. Krowee, *Roxb. fl. ind.* 3, *p.* 229.) L. ♄ Assam. Nepal. Fl. small, white. In H. C. G. fl. H. S.; fr. C. S. (*Roxb.*) *Wood* dark-brown, too porous for furniture, but seemingly fit for various other purposes. (*Roxb.*)
9. *marginata*, Roxb. (*fl. ind.* 3, *p.* 230.) ♄ ◡ Silhet. Flowers white. In H. C. G. fl. R. S.; fr. H. S. (*Roxb.*)
10. *sympathetica*, Nimmo. (*J. Grah. Cat. B. pl. p.* 55;—*Rheed.* 8, *t.* 40.) ♄ ◡ Feb. and March. The Ghauts.
11. *tamarindifolia*, Roxb. (*fl. ind.* 3, *p.* 233;—*Wight. icon.* 1, *t.* 242.) ♄ ◡ Assam. In H. C. G. fl. March and April; fr. Jan. (*Roxb.*)
12. *rimosa*, Roxb. (*fl. ind.* 3, *p.* 233.) L. ♄ Silhet, Assam. Fl. small, greenish-white, fragrant, March and April; fr. Nov. and Dec.
13. *stipulacea*, Roxb. (*fl. ind.* 3, *p.* 233;—*Wight. icon.* 1, *t.* 243.) ♄ Silhet. Fl. small, blue. In H. C. G. fl. March and April; fr. Nov. (*Roxb.*)
14. *reniformis*, Roxb. (*fl. ind.* 3, *p.* 226.) ♄ Silhet. In H. C. G. fl. March and April; fr. Nov. and Dec. (*Roxb.*)
15. *spinosa*, Roxb. (*fl. ind.* 3, *p.* 233;—*W. and A. pr.* 1, *p.* 266.) ♄ Chittagong. Rangoon. Moulmein. Soonderbuns. Introduced in 1841.
16. *glauca*, Wall. Cat.—Martaban. In H. C. G. Fl. ?

17. *pulchra*, (D. tephrosioïdes, *W. and A. pr.* 1, *p.* 210. *annot.*—Tephrosia pulchra, *Colebr.*; *Wall. Cat.*) Khassya Mountains. In H. C. S. Fl.?

PTEROCARPUS, L. (*DC. pr.* 2, *p.* 418;—*W. and A. pr.* 1, *p.* 266.)

1. *santalinus*, L. (*DC. o. c. p.* 419;—*W. and A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 234.) রক্ত চন্দন *Rukto-chundun.* ♄ Coromandel. Paulghaut Mountains. In H. C. G. fl. H. S. (*Roxb.*) From this tree is obtained the *red Sandal-wood*, chiefly employed by dyers and colour-manufacturers.
2. *indicus*, Willd. (*DC. pr.* 2, *p.* 419;—*Roxb. fl. ind.* 3, *p.* 238;—*Rumph.* 2, *t.* 70.) L. ♄ China. Moluccas. Malay Islands. Fl. smallish, deep yellow, fragrant, April and May; fr. Oct. and Nov.
3. *Marsupium*, Roxb. (*Corom.* 2, *t.* 116;—*fl. ind.* 3, *p.* 234;—*DC. pr.* 2, *p.* 418;—*W. and. A. pr.* 1, *p.* 266;—*J. Grah. Cat. B. pl. p.* 56; excl. syn. Rheed.) L. ♄ পীত শাল *Peet-sal.* Columala. Neelgherries. Common in some parts of the Concans. Rajpeepla jungles. Assam. Fl. smallish, white, tinged with yellow, R. S.; fr. H. S. *Wood* reddish, employed by the Natives for making doors, window frames, &c. *Bark* and *leaves* afford gum *Kino*, exported in considerable quantities from Malabar. (*Dr. Gibson.*) Long ago Dr. Roxburgh had said: "The specimen of the *gum Kino Tree*, in the Banksian Herbarium, is perfectly like P. Marsupium."
4. *dalbergioïdes*, Roxb. (*fl. ind.* 3, *p.* 236;—*DC. pr.* 2, *p.* 418;—*W. and A. pr.* 1, *p.* 267;—*Wight. icon.* 1, *t.* 246.) *Andaman Red Wood-Tree.* L. ♄ Andaman Islands. Fl. smallish, yellow, fragrant, June and July; fr. Nov. and Dec. An immense tree. Trunk sometimes above fifteen feet in circumference. *Wood* not unlike Mahogany, but more heavy, red and coarse in the grain. That of the *root* beautifully variegated, closer grained, and darker coloured. (*Roxb.*)
5. *Draco*, L. (*DC. pr.* 2, *p.* 418;—*Roxb. H. B. p.* 53.—P. officinalis, *Jacq. amer*, *t.* 183, *f.* 2.—P. hemiptera, *Gärtn. fr.* 2, *p.* 351, *t.* 156, *f.* 2.) ♄ Guadeloupe. Introduced into H. C. G. in 1812. Fl.? Yields the *Dragon's blood* of the shops.

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* *Butea minor*, Buch. Nepal. Khassya Mountains.—*B. gyrocarpa*, Grah. Penang.—*B. Gibsonii*, J. Grah. ♄ Buglana jungles about Jooneer. Between Poona and Mahableshwur. Carpenters prefer it to all other woods requiring toughness of fibre; as for shafts of gigs, &c.—*Endespermum scandens*, Bl. ♄ ◡ Java.—*Pongamia atropurpurea*, Wall. pl. as. rar. 1, t. 78. Moulmein, Amherst. Penang.—*P. ovalifolia*, W. and A. Wight. icon. 2, t. 328. ♄ Peninsula of India.—*Millettia rubiginosa*, W. and A.; Wight. icon. 1, t. 207. Courtallum.—*M. splendens*, W. and A. Peninsula of India.—*Dalbergia sissooïdes*, Grah. Neelgherries, Courtallum.—*D. congesta*, Grah. Neelgherries.—*D. rubiginosa*, Roxb. Corom. 2, t. 115. ♄ ◡ Circars.—*D. volubilis*, Roxb. Corom. 2, t. 191. Circars.

—*Pterocarpus Wallichii*, W. and A.; Wight. ill. 1, t. 78.—*P. suberosus*, Pers. ♃ Guiana.—*P. Rohrii*, Vahl. ♃ Guiana.—*P. sapindoïdes*, DC. ♃ S. America.—*P. gummifer*, Bert. ♄ St. Domingo.—*Sommerfeldtia lunata*, Lindl. ♆ Guiana. W. Indies.—*Ecastaphyllum Brownei*, Pers. ♆ ◡ W. Indies.—*E. Monetaria*, DC. ♆ ◡ Surinam.—*Amerimnum Brownei*, Swz. ♃ Jamaica.—*Brya Ebenus*, DC. ♃ W. Indies.—*Deguelia scandens*, Aubl. ♆ ◡ Guiana.

G. Swartzieæ, DC.

(*pr.* 2, *p.* 422.)

* *Swartzia pinnata*, Willd. ♄ Trinidad.—*S. grandiflora*, Willd. ♄ Trinidad, St. Vincent.—*S. simplicifolia*, Willd. ♄ W. Indies.—*S. parviflora*, DC. ♄ Cayenne.—*S. ochnacea*, DC. ♄ Buenos Ayres.—*S. triphylla*, Willd. ♃ Guiana.—*S. tomentosa*, DC. Cayenne, where it is called *Bois pagaie blanc*.—*Baphia nitida*, Lodd.; B. Cab. 4, t. 367. ♄ Sierra Leona.

H. Geoffreæ, DC.

(*pr.* 2, *p.* 473;—*W. and A. pr.* 1, *p.* 279.)

Arachis, L. (*DC. o. c. p.* 474;—*W. and A. l. c.*) *Earth-nut.*

1. *hypogea*, L. (*DC. l. c.*;—*W. and A. o. c. p.* 280;—*Roxb. fl. ind.* 3, *p.* 280;—*J. Grah. Cat. B. pl. p.* 60.—A. Asiatica, *Lour.*—A. africana, *Lour.*—*Rumph.* 5, *t.* 156, *f.* 2.) আটকে কলায় *Atke-kulay.* মুঙ্গ ফল্লী *Moong-phullee.* ⊙ Hot parts of America. Domesticated in Africa, Asia, and S. Europe. Fl. small, bright-yellow, R. and C. S.; fr. Feb. The pods, which grow under ground, are sold in the bazars. *Seeds* eatable, tasting somewhat like almonds or nuts, and used as a common article of diet in S. America. A sweet oil which does not turn rancid, is expressed from them, and an agreeable orgeade prepared from their paste, mixed with water and sugar. (*A. Richard.*)

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* *Voandzeia africana*, Pet. Th. ⊙ Madagascar, S. Africa.—*Peraltea lupinoïdes*, H. B. and Kth. ♄ New Spain.—*Brongniartia mollis*, H. B. and Kth. ♄ New Spain.—*Andira inermis*, H. B. and Kth. ♃ Jamaica.—*A. retusa*, H. B. and Kth. ♃ Cayenne.—*Geoffroya spinosa*, Jacq. ♃ S. America, about Carthagena.—*G. violacea*, Pers. ♃ Guiana.—*Brownea Rosa*, Pers. ♃ W. Indies.—*B. coccinea*, Jacq. ♃ W. Indies.—*B. latifolia*, Jacq. ♃ Trinidad.—*B. grandiceps*, Jacq. ♃ Caracas.—*Dipterix odorata*, Willd. ♃ Guiana.—(*Tonquin Bean.*)

I. Cassieæ, DC.

(*pr.* 2, *p.* 478;—*W. and A. pr.* 1, *p.* 280.)

Gleditschia, L. (*DC. pr.* 2, *p.* 479.)

1. *triacanthos*, L. (*DC. l. c.*;—*Spreng. syst.* 3, *p.* 918.) ♃ Virginia. Carolina. Has not fl. here.
2. *sinensis*, Lam. (*DC. l. c.*; *Spreng. o. c. p.* 919,—*J. Grah. Cat. B. pl. p.* 60.—G. horrida, *Willd.*—Mimosa fera, *Lour*;—*Roxb. fl. ind.* 2, *p.* 560.) L. ♄ China. Fl. small, green, C. S.; fr. R. S.

GYMNOCLADUS, Lam. (*DC. pr.* 2, *p.* 479.)

1. *canadensis*, Lam. (*DC. o. c. p.* 480;—*Michx. fl.* 2, *p.* 241, *t.* 51.—Guilandina dioïca, *L.*) ♄ Forests of Canada, New York, Tennesee, Ohio and Kentucky. Introduced into H. C. G. before 1814. Fl. ?

GUILANDINA, Juss. (*DC. pr.* 2, *p.* 480;—*W. and A. pr.* 1, *p.* 280.)

1. *Bonduc*, L. (*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 60.—G. Bonducella, L.—Cæsalpinia Bonduc, *Roxb. fl. ind.* 2, *p.* 362.—C. Bonducella, *Fleming*; *As. res.* 2, *p.* 159;—*Roxb. o. c. p.* 357.—*Rheed.* 2, *t.* 22.—*Rumph.* 5, *t.* 48 *and t.* 49, *f.* 1.) নাটা *Nata.* নাটা কর্‌ঞ্জা *Nata-kurunja.* L. ♄ ◡ Moluccas. Ceylon. Coromandel. Bombay. Ava. Bengal, (Serampore.) Assam. Fl. largish, sulphur, R. S.; fr. C. S. One of the *seeds* of this plant pounded into a paste with three or four pepper-corns, and taken from three to four times a day in a decoction of Chiruta is an excellent febrifuge. The seeds are intensely bitter and powerfully tonic, and should not be neglected, at least, as an adjuvant, where *bark* and *quinine* disagree with the constitution. The whole plant is well adapted for hedges.

CÆSALPINIA, L. (*DC. pr.* 2, *p.* 481;—*W. and A. pr.* 1, *p.* 280.)

1. *paniculata*, Roxb. (*fl. ind.* 2, *p.* 364;—*DC. l. c.*;—*W. and A. o. c. p.* 281;—*J. Grah. Cat. B. pl. p.* 60;—*Wight. icon.* 1, *t.* 36.—C. scandens, *Kön.*; *Roth*;—*DC. o. c. p.* 482.—Guilandina paniculata, *Lam.*—*Rheed.* 6, *t.* 19.) L. ♄ ◡ Travancore. Malabar. Banks of the Saweeree, between Dagsaum and Mahar. Œstuaries of the Irawaddi. Ceylon. Fl. largish, yellow, fragrant. In H. C. G. fl. C. and H. S.; fr. R. S. (*Roxb.*)
2. *Sappan*, L. (*DC. pr.* 2, *p.* 482;—*W. and A. pr.* 1, *p.* 281;—*Roxb. Corom.* 1, *t.* 16;—*fl. ind.* 2, *p.* 357;—*J. Grah. Cat. B. pl. p.* 60.—*Rheed.* 6, *t.* 2;—*Rumph.* 4, *t.* 21.) বকম *Bukum.* L. ♄ ◡ Moluccas. Ceylon. Coromandel. Bengal, (Serampore.) Fl. largish, yellow, H. S.; fr. C. S. Affords the *Red wood* of commerce, which is extensively exported as a dye wood.
3. *digyna*, Rottl. (*DC. pr.* 2, *p.* 482;—*W. and A. pr.* 1, *p.* 281.—C. oleosperma, *Roxb. fl. ind.* 2, *p.* 357.) অমল কুচি *Umul-koochi.* L. ♄ ◡ Peninsula of India. Bhaugulpore. Fl. largish, yellow. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*) From the seeds is expressed an oil, which in some parts of the country is used to burn in lamps. (*Roxb.*)
4. *mimosoïdes*, Lam. (*DC. pr.* 2, *p.* 482;—*W. and A. pr.* 1, *p.* 281;—*J. Grah. Cat. B. pl. p.* 60.—*Wight. icon.* 2, *t.* 392.—C. Simora, *Buch. p.* 359.) ♄ ◡ Mysore. Malabar. Mahim woods, Bombay. Chappedong. Fl. largish, sulphur, nearly the whole year; fr. H. S.
5. *sepiaria*, Roxb. (*fl. ind.* 2. *p.* 360;—*W. and A. pr.* 1, *p.* 282;—*J. Grah. Cat. B. pl. p.* 61;—*Wight. icon.* 1, *t.* 37.—Reichardia ? decapetala, *Roth.*;—*DC. pr.* 2, *p.* 484.) *Mysore-thorn.* L. ♄ ◡ My-

sore. Cunnawady. Tavoy. Ava. Nepal. Kemaon. Generally used as a fence in the *Baghayat* lands of the Deccan. Hyder Ali surrounded fortified places with it, as it forms an almost impenetrable fence. Domesticated in Bengal, (Serampore.) Fl. midle-sized, bright sulphur, R. and C. S.; fr. C. S.

6. *resupinata*, Roxb. (*fl. ind.* 2, *p.* 362.) L. ♄ ◡ Moluccas. Fl. smallish, bright yellow. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
7. *tortuosa*, Roxb. (*fl. ind.* 2, *p.* 365.) L. ♄ ◡ Sumatra. Fl. large, yellow, streaked with red. In H. C. G. fl. Feb. and March; fr. R. S. (*Roxb.*)
8. *Coriaria*, Willd. (*DC. pr.* 2, *p.* 483.—Poinciana Coriaria, *Jacq. am.* *p.* 123, *t.* 175, *f.* 37.) ♄ Sea-coasts of Curaçao, Carthagena, St. Domingo and St. Thomas. Has not fl. here yet. *Pods*, in the W. Indies, called *Libidibi*, used for tanning.

COLVILLEA, Bojer.

1. *racemosa*, Bojer. (*B. M.* 61, 3325-26.) ♄ Madagascar. C. S. 1840.

POINCIANA, L. (*DC. pr.* 2, *p.* 483;—*W. and A. pr.* 1, *p.* 282.)

1. *pulcherrima*, L. (*DC. o. c.* 484;—*W. and A. l. c.*;—*Roxb. fl. ind.* 2, *p.* 355;—*B. M.* 25, *t.* 995;—*J. Grah. Cat. B. pl. p.* 61;—*Rheed.* 6, *t.* 1;—*Rumph.* 4, *t.* 20.) কৃষ্ণ চূড়া *Krishno-choora*. L. ♄ Moluccas. Both Peninsulas of India. Bengal, (Serampore.) Fl. large, sweetish-scented, and fr. whole year. Domesticated in the W. Indies.
   α. *bicolor*. Fl. orange, variegated with crimson.
   β. *concolor*. Fl. throughout bright yellow.
2. *elata*, L. (*DC. pr.* 2, *p.* 484;—*W. and A. pr.* 1, *p.* 282;—*Roxb. fl. ind.* 2, *p.* 355;—*J. Grah. Cat. B. pl. p.* 61.) ♄ Coromandel. Malabar. Goozerat. Arcot. Fl. large, yellow. In H. C. G. fl.; and fr. whole year. (*Roxb.*)
3. *regia*, Bojer. (*B. M.* 56, *t.* 2884.) ♄ Madagascar. Fl. very large, bright scarlet, variegated with yellowish, R. S.
4. *Gilliesii*, Hook. (*Bot. misc.* 1, *p.* 129, *t.* 34.) ♄ Chili, about Mendoza. Fl. sulphur, of a sickly disagreeable smell, R. S.

MEZONEURUM, Desf. (*DC. pr.* 2, *p.* 484;—*W. and A. pr.* 1, *p.* 282.)

1. *cucullatum*, W. and A. (*o. c. p.* 283;—*J. Grah. Cat. B. pl. p.* 61.—Cæsalpinia cucullata, *Roxb. fl. ind.* 2, *p.* 358.) L. ♄ ◡ Travancore. Lanowlee grove, Kandalla. Ravines about Parr. Soonderbuns. Assam. Fl. largish, greenish dark red yellow, R. S.; fr. 0. in H. C. G. C. S. (*Roxb.*)
2. *enneaphyllum*, W. and A. (*pr.* 1, *p.* 283. *annot.*—Cæsalpinia enneaphylla, *Roxb. fl. ind.* 2, *p.* 363.) L. ♄ ◡ Fl. yellow, fragrant. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)
3. *sumatranum*, W. and A, (*pr.* 1, *p.* 283. *annot.*—Cæsalpinia sumatrana, *Roxb. fl. ind.* 2, *p.* 366.) L. ♄ ◠ Sumatra. Fl. largish, orange, tinged with pink. In H. C. G. fl. H. and R. S.; fr. C. S. (*Roxb.*)

Hæmatoxylon, L. (*DC. pr.* 2, *p.* 485.)

1. *campechianum*, L. (*DC. l. c.*) *Log-wood.* 5 Campeche. Cultivated in Jamaica. Fl. small, purple-sulphur, fragrant, Jan. and Feb.; fr. April and May. *Wood* exported from America as dyewood.

Parkinsonia, L. (*DC. pr.* 2, *p.* 485;—*W. and A. pr.* 1, *p.* 283.) *Jerusalem Thorn. Genet épineux.*

1. *aculeata*, L. (*DC. o. c. p.* 486;—*W. and A. o. c. p.* 284;—*Roxb. H. B. p.* 31;—*J. Grah. Cat. B. pl. p.* 61.) 5 W. Indies. S. America. Domesticated in India. Fl. smallish, sulphur, sweet-scented, and fr. nearly the whole year.

Ceratonia, L. (*DC. pr.* 2, *p.* 486.)

1. *Siliqua*, L. (*DC. l. c.*;—*B. Repos.* 9, *t.* 567;—*Gärtn. fr.* 2, *p.* 310, *t.* 146, *f.* 1.) *Carob Tree.* 5 S. Europe. N. Africa. Levant. Fl. small, brownish yellowish, C. S.; fr. 0. Flesh of the pod of a mild sugary taste, nourishing, gently aperient, and much eaten by the people where the tree grows. In Egypt a syrup is prepared from it, and used to preserve other fruits. (*A. Richard.*) Prof. Lindley has recommended, through Dr. Royle, the introduction of this tree into the northern parts of India, especially into such places as are occasionally visited by famine. The plant seeking its nourishment under ground, is so independent of surface irrigation and so retentive of life, that according to M. Bové, a tree supposed to be 300 years old, which was cut down during the French invasion of Egypt, sprang up again thirty years after on wells being sunk in its neighbourhood. The crop of the Carob trees is very abundant, some of them yielding from 800 to 900 pounds of pods, Prof. Lindley adds, that during, the Peninsula war, the horses of the British cavalry often thrived upon the seeds of the Carob trees. The same is the case with cattle, mules, and asses in Egypt, Syria, and S. Europe. (*Loud. encycl. of pl. p.* 868.)

Hardwickia, Roxb. (*DC. pr.* 2, *p.* 486;—*W. and A. pr.* 1, *p.* 284.)

1. *binata*, Roxb. (*Corom.* 3, *t.* 209;—*fl. ind.* 2, *p.* 423;—*DC. o. c. p.* 487;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 61.) L. ♄ Mountains of Coromandel. Guzelhete-pass. Common in Lulling-pass, between Malligaum and Dhoolea. Fl. small, yellowish. Introduced into H. C. G. in 1800, but had not fl. up to 1814.
2. *pinnata*, Roxb. (*fl. ind.* 2, *p.* 425;—*DC. pr.* 2, *p.* 487;—*W. and A. pr.* 1, *p.* 284.) ♄ Travancore. Introduced into H. C. G. in 1809, but had not fl. up to 1814.

Jonesia, Roxb. (*DC. pr.* 2, *p.* 487;—*W. and A. pr.* 1, *p.* 284.)

1. *Asoca, Roxb.* (*fl. ind.* 2, *p.* 218;—*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 62;—*B. M.* 57, *t.* 3018;—*Wight. icon.* 1, *t.* 206.—J. pinnata, *Willd.*—Saraca arborescens, *Burm. ind. t.* 25, *f.* 2. —S. indica, *L.*—*Rheed.* 5, *t.* 59.) অশোক *Ushok.* Coromandel. Ram Ghaut. Martaban. Khassya Mountains. Assam. Fl. smallish,

orange-scarlet, during the night fragrant, March and April; fr. Aug. and Sept.

2. *scandens*, Roxb. (*fl. ind.* 2, *p.* 220.) ♄ ◡ Sumatra. Introduced into H. C. G. in 1804, but had not fl. up to 1814.

J. triandra, Roxb. (*fl. ind.* 2, *p.* 220.) Malay Archipelago, is not mentioned in Roxb. H. B.

DALHOUSIËA, Grah. (*Wall. Cat.*)

1. *bracteata*, Grah. (*Wight. icon.* 1, *t.* 265.—Podalyria bracteata, *Roxb. fl. ind.* 2, *p.* 317.) L. ♄ Khassya Mountains. Fl. large, white. In H. C. G. fl. May and June.; fr. Dec. and Jan. (*Roxb.*)

AMHERSTIA, Wall. (*pl. as. rar.* 1, *p.* 1.)

1. *nobilis*, Wall. (*pl. as. rar. l. c.*) ♄ Martaban. Woods near Pogoon. Fl. very large, scarlet, variegated with white and yellow. Fl. in March; fr. 0.

TAMARINDUS, L. (*DC. pr.* 2, *p.* 488;—*W. and A. pr.* 1, *p.* 285.)

1. *indica*, L. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 215;—*J. Grah. Cat. B. pl. p.* 62.—T. occidentalis, *Gärtn. fr.* 2, *p.* 310, *t.* 146, *f.* 2;—*DC. o. c. p.* 489;—*Jacq. amer. p.* 10, *t.* 10. *and t.* 179, *f.* 198;—*Rheed.* 1, *t.* 23;—*Rumph.* 2, *t.* 23.) তিন্তড়ী *Tin-tooree.* আমলি *Amli.*—*Tamarind-tree.* L. ♄ Moluccas. Both Peninsulas of India. Bengal, (Serampore.) Assam. Fl. middle-sized, somewhat orange, streaked with scarlet, slightly sweet-scented, May and June; fr. Jan. and Feb.—*Wood* durable, hard, beautifully veined. *Leaves* eaten by the natives in their curries. *Pulp* of the fruit slightly aperient. *Kernels*, like those of the mangoe, eaten in times of scarcity and famine; reduced to a fine powder and boiled they form a tenacious paste, and a strong wood-cement, if thin glue is added. (*Roxb.*) The paste, simply smeared on the skin, has the property of rapidly promoting suppuration in indolent (*blind*) boils. (*Wight.*)

α. oxycarpa. Fruit sour.

β. melicarpa. Fruit sweetish.

γ. rhodocarpa. Pulp of the fruit rose-coloured. This variety makes a very fine preserve, and yields a beautiful deep red-colour approaching to purple. (*Roxb. l. c.*)

CATHARTOCARPUS, Pers. (*syn.* 1, *p.* 459.—Cassia, L. sect. 1, Fistula;—*DC. pr.* 2, *p.* 489;—*W. and A. pr.* 1, 285.)

1. *Fistula*, Pers. (*l. c.*—*Cassia Fistula, L.*;—*DC. o. c. p.* 490;—*W. and A. l. c.* excl. C. rhombifolia, Roxb.;—*Roxb. fl. ind.* 2, *p.* 333;—*J. Grah. Cat. B. pl. p.* 62;—*Gärtn. fr.* 2, *p.* 313, *t.* 147, *f.* 1.—*Lam. ill. t.* 332.—*Rheed.* 1, *t.* 22.—*Rumph.* 2, *t.* 21.) শোনালু *Sonaloo.* বানর লাঠি গাছ *Banur-lati-gachh.* ♄ Moluccas. Both Peninsulas of India. Bengal, (Serampore.) Assam. Oude. Foot of the Himalayas Fl. large, bright yellow, fragrant, May and June; fr. (বানর লাঠি *Banur-lati.*) Feb. and March. The sweetish secretion surrounding the seeds is slightly aperient.

2. *rhombifolius*, G. Don. (*Mill. dict.* 2, *p.* 453.—Cassia rhombifolia, *Roxb. fl. ind.* 2, *p.* 334;—*Wight. icon.* 1, *t.* 269.) ♄ Ceylon. Fl. large, bright yellow. In H. C. fl. May and June; fr. Feb., March and April. (*Roxb.*)
3. *nodosus*, (Cassia nodosa, *Buch.*;—*Roxb. fl. ind.* 2, *p.* 336;—*Wight. icon.* 2, *t.* 410.) ♄ Chittagong. Fl. large, rose-coloured, fragrant, April and May; fr. Feb. and March.
4. *javanicus*, Pers. (*syn.* 1, *p.* 459.—Cassia javanica, *L.*;—*DC. pr.* 2, *p.* 490;—*Wight. icon.* 1, *t.* 252;—*J. Grah. Cat. B. pl. p.* 62.—C. Bacillus, *Gärtn. fr.* 2, *p.* 313;—*Roxb. fl. ind.* 2, *p.* 337.—*Rumph.* 2, *t.* 22.) ♄ Moluccas. Java. Malay Islands. Fl. large, rose-coloured, fragrant, April and May; fr. Feb.
5. *marginatus*, G. Don. (*Mill. dict.* 2, *p.* 453.—C. marginata, *Roxb. fl. ind.* 2, *p.* 338; not Willd.—C. Roxburghii, *DC. pr.* 2, *p.* 489;—*W. and A. pr.* 1, *p.* 286;—*Wight. ill.* 1, *t.* 83.) ♄ Gingie hills. Ceylon. Fl. middle-sized, nearly inodorous, more or less rose-coloured, R, S.; fr. March and April.
6. *brasilianus*, (C. grandis, *Pers. syn.* 1, *p.* 459.—Cassia grandis, *L. fil.*;—*Roxb. H. B. p.* 31.—C. mollis, *Vahl.*;—*Jacq. fragm. t.* 85, *f.* 3.—C. brasiliana, *Lam.*;—*DC. pr.* 2, *p.* 489.) L. ♄ W. Indies. Guiana. Brazil. Fl. smallish, sweet-scented, deep-rose, March, April, and May; fr. Feb., March and April.
7. *bacillaris*, (C. Bacillus, *Pers.*;—*B. Reg.* 11, *t.* 881, excl. syn. Gärtn.—Cassia bacillaris, *L. fil. suppl. p.* 231;—*Roxb. H. B. p.* 31.) ♄ Surinam. Fl. middle-sized, sulphur, inodorous, Nov. and Dec.; fr. R. S.

Cassia, L. (*DC. pr.* 2, *p.* 489;—*W. and A. pr.* 1, *p.* 285.)

1. *bicapsularis*, L. (*DC. o. c. p.* 494;—*W. and A. o. c. p.* 286;—*Roxb. H. B. p.* 31;—*J. Grah. Cat. B. pl. p.* 62.—C. sennoïdes, *Jacq. icon. rar.* 1, *t.* 170;—*DC. l. c.*—Senna bicapsularis, *Roxb. fl. ind.* 2, *p.* 342.) L. ♄ W. Indies. S. America. Domesticated about Serampore. Fl. largish, gold-coloured, Sept. and Oct.; fr. Feb. and March.
2. *Sophora*, L. (*DC. pr.* 2, *p.* 492;—*W. and A. pr.* 1, *p.* 287;—*Roxb. H. B. p.* 31;—*J. Grah. Cat. B. pl. p.* 62.—C. esculenta, *Roxb. H. B. p.* 31.—Senna Sophora, *Roxb. fl. ind.* 2, *p.* 347.—S. esculenta, *Roxb. o. c. p.* 346;—*Rheed.* 2, *t.* 52;—*Rumph.* 5, *t.* 97. *f.* 1;—*Burm. zeyl. t.* 98.—To these syn. may be added: C. coromandeliana, *Jacq. fragm.* 67, *t.* 100;—*DC. l. c.*—C. sopheroïdes, *Collad.*;—*DC. o. c. p.* 506.—C. torosa, *Cav.*—*DC. o. c. p.* 491.) কালকাসুন্দা *Kalkasoonda.* ☉ Moluccas. Ceylon. Both Peninsulas of India. Bengal, (Serampore,) Assam, Nepal. Fl. middle-sized, yellow, R. and C. S.; fr. Feb. and March. Smell of this plant heavy and disagreeable. Leaves eaten by the Natives in their curries.

   β. *purpurea*; (*C. purpurea, Roxb. H. B. p.* 31;—*B. Reg.* 10, *t.* 856.—Senna purpurea, *Roxb. fl. ind.* 2, *p.* 342.) কাল কালকাসুন্দা

Kalo-kalkasoonda. ⊙ Coromandel Mountains. Bengal, (Serampore.) Assam.

3. *corymbosa,* Lam. (*DC. pr.* 2, *p.* 492;—*B. M.* 17, *t.* 633.—C. crassifolia, *Ort.*—C. falcata, *Dum. Cours. bot. cult. ed.* 2, *v.* 6, *p.* 35.) ♄ Buenos Ayres. Fl. large, gold-coloured, C. S.; fr. Feb. and March.
4. *alata,* L. (*DC. pr.* 2, *p.* 492;—*W. and A. pr.* 1, *p.* 287;—*Wight. icon.* 1, *t.* 253;—*J. Grah. Cat. B. pl. p.* 62;—*Roxb. H. B. p.* 31.—C. bracteata, *L. fil.*—C. herpetica, *Jacq. obs.* 2, *t.* 45, *f.* 2.—Senna alata, *Roxb. fl. ind.* 2, *p.* 349;—*Rumph. auct. t.* 18.) দাদ্ মর্দ্দন *Dadoo-murdun.* L. ♄ W. Indies. Cultivated in India. Domesticated about Serampore. Fl. large, orange yellow, heavy smelling, Sept. and Oct.; fr. Feb. The *fresh leaves* well rubbed into the parts affected once or twice a day, very frequently cure ringworms.
5. *obtusa,* Roxb. (*H. B. p.* 31;—*W. and A. pr.* 1, *p.* 288.—C. Senna, *Hb. L.* from *Kön.*—Senna obtusa, *Roxb. fl. ind.* 2, *p.* 344.) ♃. Mysore. Paghamew. Fl. small, yellow, and fr. whole year. *Leaves* used as a substitute for Senna in Mysore.
6. *elongata,* Lem. Lisanc. (C. lanceolata, *W. and A. pr.* 1, *p.* 288; excl. all the syn. except Roxb's.;—*Royl. ill. t.* 37, not Forsk;—*J. Grah. Cat. B. pl. p.* 62, excl. syn. Gärtn. and Lam.—Senna officinalis, *Roxb. fl. ind.* 2, *p.* 346, excl. syn. Gärtn. and L.—Cassia Senna, *Roxb. H. B. p.* 31, excl. syn. L. and native place.) সোন পাট *Sona-pat.*—*Tinnevelly Senna.* ♄ Tinnevelly. Goozerat, about Dholka. Fl. middle-sized, gold-coloured, R. and C. S.; fr. Feb. and March. *Leaves* milder in operation than the Alexandrian Senna, and occasioning no gripes. The plant comes near to C. lanceolata, Forsk; but is a distinct species, according to Lindley.
7. *C. florida,* Vahl. (*DC. pr.* 2, *p.* 499;—*W. and A. pr.* 1, *p.* 288;—*J. Grah. Cat. B. pl. p.* 63.—C. sumatrana, *Roxb. H. B. p.* 31;—*DC. pr.* 2, *p.* 506.—Senna sumatrana, *Roxb. fl. ind.* 2, *p.* 347.) ♄ Sumatra. Banks of the Irawaddi. Cultivated in gardens. Fl. large, yellow, whole year; fr. Feb. and March. A very useful tree in Sumatra. It is of rapid growth, and its wood is not inferior to Ebony when old. (*Roxb.*)
8. *Berryana,* (C. glauca, *Roxb. H. B. p.* 31; not Lam.—Senna glauca, *Roxb. fl. ind.* 2, *p.* 351.) L. ♄ The Carnatic. Fl. large, yellow. In H. C. G., where it was introduced, by Dr. Berry, in 1800; Fl. Oct. and Nov.; fr. March and April. (*Roxb.*)
9. *glauca,* Lam. (*DC. pr.* 2, *p.* 495;—*W. and A. pr.* 1, *p.* 289;—*J. Grah. Cat. B. pl. p.* 63;—*C. arborescens,* Vahl.;—*Roxb. H. B. p.* 31; not Mill.—C. sulphurea, *DC. o. c.*—C. surattensis, *Burm. ind. p.* 97.—C. enneaphylla, *Kön.*—C. planisiliqua, *Burm. o. c. p.* 98.—Senna arborescens, *Roxb. fl. ind.* 2, *p.* 345.—*Rheed.* 6, *t.* 9, 10.) 5 Coromandel. Ava. Cultivated in gardens. Fl. large, sulphur, R. and C. S.; fr. Feb. and March.

10. *suffruticosa*, Kön. (*DC. pr.* 2, *p.* 496;—*W. and A. pr.* 1, *p.* 289.—C. speciosa, *Roxb. H. B. p.* 31.—Senna speciosa, *Roxb. fl. ind.* 2, *p.* 347.) ♄ Deyra Dhoon. Banks of the Irawaddi. Martaban. Tavoy, Singapore. Cultivated in gardens. Fl. large, yellow, the whole year; fr. Feb. and March.
11. *auriculata*, L. (*DC. pr.* 2, *p.* 496;—*W. and A. pr.* 1, *p.* 290;—*Roxb. H. B. p.* 31;—*J. Grah. Cat. B. pl. p.* 63.—Senna auriculata, *Roxb. fl. ind.* 2, *p.* 349.) ♄ Ceylon. Coromandel. Sterile tracts of the Deccan and Goozerat.—Fl. large, bright yellow, Oct. Nov. and Dec.; fr. Feb. and March.—*Bark* astringent, used by the natives to tan and dye leather of a buff colour. (*Roxb.*) Workers in iron employ the root in tempering iron with steel. (*Dr. Gibson.*) Branches made into native tooth-brushes. (*Dr. Burn.*)
12. *biflora*, L. (*DC. pr.* 2, *p.* 495;—*B. M.* 21, *t.* 810;—*B. Reg.* 16, *t.* 1310.) ♄ W. Indies. S. America. Fl. large, yellow, C. S.; fr. Feb.
13. *aversiflora*, Herb. (*B. M.* 53, *t.* 2676.) ♄ Brazil. Fl. largish, yellow, C. S.; Feb. and March.
14. *marilandica*, L. (*DC. pr.* 2, *p.* 498;—*Roxb. H. B. p.* 31.) ♄ Temperate N. America. Fl. middle-sized, yellow, R. and C. S.; fr. Feb. and March. *Leaves* used in N. America as a substitute for Alexandrian Senna.
15. *ligustrina*, L. (*DC. pr.* 2, *p.* 498;—*B. Reg.* 2, *t.* 109;—*B. M.* 43, *t.* 1829;—*Roxb. H. B. p.* 32.) ♄ America, from Cayenne to Virginia. Fl. large, yellow-orange, was introduced into H. C. G. in 1800, but had not fl. up to 1814.
16. *frondosa*, Ait. (*DC. pr.* 2, *p.* 496;—*Roxb. H. B. p.* 32.) ♄ Hot parts of America. W. Indies. Introduced into H. C. G. in 1800, but had not fl. up to 1814.
17. *australis*, Sims. (*B. M.* 53, *t.* 2676;—*B. Reg.* 16, *t.* 1322.) ♄ N. Holland. Fl. largish, bright-yellow, C. S.; fr. 0.
18. *aurata*, Roxb. (*H. B. p.* 32.—Senna aurata, *Roxb. fl. ind.* 2, *p.* 342.) ♄ Malay Islands. Fl. middle-sized, gold-coloured, R. and C. S.; fr. C. S.
19. *hirsuta*, L. fil. (not Desv.—*DC. pr.* 2, *p.* 497.—C. caracassana, *Jacq. hort. schön. t.* 270.) ♄ S. America. Fl. largish, bright-yellow, R. and C. S.; fr. Feb. and March.
20. *occidentalis*, L. (*DC. pr.* 2, *p.* 497;—*W. and A. pr.* 1, *p.* 200;—*B. Reg.* 1, *t.* 83;—*Roxb. H. B. p.* 31;—*J. Grah. Cat. B. pl. p.* 63.—Senna occidentalis, *Roxb. fl. ind.* 2, *p.* 343.) ⊙ W. Indies. Hot parts of America. Senegambia. Domesticated nearly all over India. It has like the next species, a most offensive, sickening smell. *Leaves* purgative.
21. *Tora*, L. (*W. and A. pr.* 2, *p.* 200;—*J. Grah. Cat. B. pl. p.* 63.—C. obtusifolia, *Burm. ind. p.* 95, excl. syn.—C. fœtida, *Salisb.*—C. gallinaria, *Collad.*—*Rumph.* 5, *t.* 97, *f.* 2.) ⊙ Fl. small, yellow, R. and C. S.; fr. C. S. *Leaves* purgative.

α. *diffusa*; (C. Tora, *DC. pr.* 2, *p.* 493;—*Roxb. H. B. p.* 31.—Senna Tora, *Roxb. fl. ind.* 2, *p.* 340.) চাকন্দা *Chakunda.* Both Peninsulas of India. Ceylon. Moluccas. Bengal, (Serampore.) Assam. Senegambia.

β. *erecta*; (C. Tagera, *Lam.*;—*DC. pr.* 2, *p.* 494; not L.—C. toroïdes, *Roxb. H. B. p.* 31.—Senna toroïdes, *Roxb. fl. ind.* 2, *p.* 341;—*Rheed.* 2, *t.* 43.) Mysore.

22. *Absus*, L. (*DC. pr.* 2, *p.* 500;—*W. and A. pr.* 1, *p.* 291;—*Roxb. H. B. p.* 31.—Senna Absus, *Roxb. fl. ind.* 2, *p.* 340;—*Burm. zeyl. t.* 97.) ♂ Ceylon. Coromandel. Monghir Mountains. Deyra-Dhoon. Senegambia. Fl. small, yellow, and fr. the whole year.

23. *Chamæcrista*, L. (*DC. pr.* 2, *p.* 503;—*Roxb. H. B. p.* 32.) ⊙ W. Indies. Carolina. Virginia. Fl. small, yellow, and fr. nearly whole year.

24. *Burmanni*, DC. (*pr.* 2, *p.* 502.—C. flexuosa, *Burm. fl. cap. prod. p.* 12. excl. syn.) ⊙ C. G. H. Fl. small, yellow, and fr. C. S.

25. *nictitans*, L. (*DC. pr.* 2, *p.* 503;—*Roxb. H. B. p.* 32.—Grimaldia assurgens, *Schrank.*) ⊙ W. Indies. Carolina. Pennsylvania. Fl. small, yellow, R. S.; fr. C. S.

26. *Wallichiana*, DC. (*pr.* 2, *p.* 505, excl. syn. Roxb.;—*W. and A. pr.* 2, *p.* 292.) ♄ Peninsula of India. Bengal, (Serampore.) Tavoy. Mussooree. Nepal. Fl. small, yellow, R. S.; fr. C. S.

27. *Telfairiana*, Wall. (*Cat.*) ♄ Mauritius. Fl. small, yellow, and fr. the whole year.

28. *angustissima*, Lam. (*DC. pr.* 2, *p.* 505;—*W. and A. pr.* 1, *p.* 292.—C. sensitiva, *Roxb. H. B. p.* 32.—Senna sensitiva, *Roxb. fl. ind.* 2, *p.* 353;—*Rumph.* 6, *t.* 67, *f.* 1.) ♄ Both Peninsulas of India. Moluccas. Bengal, (Serampore.) Maldah. Assam. Mussooree. Nepal. Fl. small, yellow, R. S.; fr. C. S.

29. *pumila*, Lam. (*DC. pr.* 2, *p.* 504;—*W. and A. pr.* 1, *p.* 292.—C. prostrata, *Roxb. H. B. p.* 32.—Senna prostrata, *Roxb. fl. ind.* 2, *p.* 352.) ♄ Coromandel. Monghir. Fl. small, yellow. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*) Cattle eat it.

30. *Leschenaultiana*, DC. (*pr.* 2, *p.* 504.—Cassia dimidiata, *Roxb. H. B. p.* 32.—Senna dimidiata, *Buch.*;—*Roxb. fl. ind.* 2, *p.* 352.) ⊙ Bengal, (Serampore.) Nepal. Fl. small, yellow, R. S.; fr. C. S.

31. *tenella*, Roxb. (*H. B. p.* 32.—Senna tenella, *Roxb. fl. ind.* 2, *p.* 354.) ♂ Bengal, (Serampore.) Fl. small, yellow, R. S.; fr. C. S.

32. *Kleinii*, W. and A. (*pr.* 1, *p.* 293;—*Rheed.* 9, *t.* 21.) ♄ Travancore. Fl. small, yellow. Has been introduced into H. C. G.?

33. *exigua*, Roxb. (*H. B. p.* 31.—Senna exigua, *Roxb. fl. ind.* 2, *p.* 339.) ⊙ Bengal. Fl. small, yellow. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

34. *palmata*, Wall. (*Cat.*) Tavoy. Martaban. In H. C. G.

35. *fulgens*, Wall. (*Cat.*) Native place unknown. In H. C. G.

SCHOTIA, Jacq. (*DC. pr.* 2, *p.* 507.)

1. *speciosa*, Jacq. (*Icon. rar.* 1, *t.* 75;—*B. Repos.* 5, *t.* 348.) ♄ C. G. H. Senegambia. Has not fl. here.

OMPHALOBIUM.

1. *Schotia*, Jacq. (*Eccl. ined.*) ♄ C. G. H. R. S. 1840.

CYNOMETRA, L. (*DC. pr.* 2, *p.* 509;—*W. and A. pr.* 1, *p.* 293.)

1. *cauliflora*, L. (*DC. l. c.*;—*W. and A. l. c.*;—*Roxb. H. B. p.* 32.—*Lam. ill. t.* 331, *f.* 2;—*J. Grah. Cat. B. pl. p.* 63;—*Rumph.* 1, *t.* 62.) ♄ Moluccas. Java. Sumatra. Penang. Cultivated in gardens. Fl. small, white. Introduced into H. C. G. in 1800, but had not fl. up to 1814.

INTSIA, Pet. Th.

1. *madagascariensis*, DC. (*pr.* 2, *p.* 509.) ♄ Madagascar.
2. *polyandra*, Roxb. (*Corom.* 3, *t.* 286;—*fl. ind.* 2, *p.* 372;—*DC. pr.* 2, *p.* 509;—*W. and A. pr.* 1, *p.* 294.) L. ♄ Assam. Fl. largish, white, March and April; fr. July and Aug. *Timber* very useful.

OUTEA, Aubl. (*DC. pr.* 2, *p.* 510.)

1. *bijuga*, DC. (*o. c. p.* 511.—Macrolobium bijugum, *Colebr. Linn. soc. trans.* 12, *t.* 19.) ♄ Singapore. Has not fl. here, though cultivated for more than 10 years.

HYMENÆA, L. (*DC. pr.* 2, *p.* 511;—*G. Don's Mill. dict.* 2, *p.* 458.)

1. *Courbaril*, L. (*DC. l. c.*;—*G. Don's Mill. dict. l. c.*;—*Lam. ill. t.* 330, *f.* 1;—*DC. leg. mem.* 12, *t.* 26, *f.* 120, *germ.*;—*Jacq. amer. pict. p.* 63, *t.* 264, *f.* 65;—*Roxb. H. B. p.* 31;—*J. Grah. Cat. B. pl. p.* 63.) *Gum Anime Tree. Courbaril Locust Tree.*—L. ♄ S. America. Petals an inch long, *here* pure white. Filaments *here* pure white. Fl. June and July; fr. 0. The filamentose, white substance contained in the pods is sweet as honey, and greedily eaten by the Indians, while fresh purgative, but afterwards losing this quality. Between the principal roots of the tree exudes a fine transparent resin, white, yellowish or red, which is collected in large lumps, and called by the English Gum Anime, though, according to Martius, "the genuine Anime is the produce of a species of Icica, and very nearly allied to Elemi." The Courbaril resin (*American Copal, Mart.*) makes the finest varnish that is known, superior even to the Chinese lac. "For this latter use it is dissolved in the highest rectified spirits of wine. It burns readily, and with a clear flame, emitting a grateful and fragrant smell, for which reason it is sometimes ordered by way of fumigation in the chambers of persons labouring with asthmas or suffocative catarrhs. Its vapours not only strengthen the head, but all parts of the body affected with cold. Some apply it outwardly, dissolved in oil or spirits of wine, to strengthen the nerves. An oil may be distilled from it, useful in palsies, and contractions of the sinews. The inner bark is an excellent vermifuge in spirit or decoction. The timber of old trees is reckoned excellent, and is in great request for wheel-work

in sugar mills, particularly for cogs to the wheels, being extremely hard and tough. It is so heavy that a cubic foot weighs a hundred pounds. It also takes a fine polish." (*G. Don.*)

TRACHYLOBIUM, Hayne. (*G. Don's. Mill. dict. p.* 158.)

1. *Lamarckianum*, Hayne. (*G. Don. o. c. p.* 159.—Hymenæa verrucosa, *Lam. ill. t.* 330, *f.* 2; not Gärtn. nor Lam. dict.) ♄ Madagascar. Fl. an inch long, pure-white, R. S.; fr. C. S.

BAUHINIA, L. (*DC. pr.* 2, *p.* 512;—*W. and A. pr.* 1, *p.* 294.)

1. *porrecta*, Swz. (*DC. o. c. p.* 513;—*B. M.* 41, *t.* 1708.) L. ♄ Jamaica. St. Domingo. Fl. largish, white, often with a tinge of rose, H. S.; fr. 0.
2. *malabarica*, Roxb. (*fl. ind.* 2, *p.* 321;—*W. and A. pr.* 1, *p.* 294.) L. ♄ Malabar. Prome. Malloon. Assam. In H. C. G. fl. Oct. and Nov.; fr. 0.
3. *acuminata*, L. (*DC. pr.* 2, *p.* 513;—*W. and A. pr.* 1, *p.* 295;—*Roxb. fl. ind.* 2, *p.* 324;—*J. Grah. Cat. B. pl. p.* 63.—B. candida, *Ait.; DC. l. c.;*—not Roxb.—*Rheed.* 1, *t.* 34.) কাঞ্চন *Kanchun.* L. ♄ Mauritius. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Assam. Fl. large, pure white, and fr. whole year.
4. *tomentosa*, L. (*DC. pr.* 2, *p.* 514;—*W. and A. pr.* 1, *p.* 295;—*Roxb. fl. ind.* 2, *p.* 323;—*J. Grah. Cat. B. pl. p.* 63;—*Rheed.* 1, *t.* 35;—*Burm. zeyl. t.* 18, bis.) ♄ Mauritius. Ceylon. Coromandel. The Concans. Patna. Assam. Oude. Nepal. Fl. large, pale sulphur, H. and R. S.; fr. C. S. Dried leaves and young flowers used by the Natives in certain dysenteric affections.
5. *racemosa*, Lam. (not Vahl.—*W. and A. pr.* 1, *p.* 295;—*J. Grah. Cat. B. pl. p.* 64.—B. parviflora, *Vahl.;—DC. pr.* 2, *p.* 514;—*Roxb. fl. ind.* 2, *p.* 323.) ♄ Mysore. Common on the ghauts and hilly parts of the Concans. Monghir. Kheree Pass. Bengal, (Serampore.) বন রাজ *Bun-raj.* Fl. small, white, May and June; fr. C. S. *Bark* used for making matches. (*J. Grah.*)
6. *microphylla*, Hortul. (*Loud. Hort. Brit. p.* 165, *No.* 10681.) ♄ S. America. Fl. middle-sized, white, and fr. nearly the whole year.
7. *variegata*, L. (*W. and A. pr.* 1, *p.* 296;—*J. Grah. Cat. B. pl. p.* 64.)
   - α. *purpurascens*; (B. variegata, *L;—DC. pr.* 2, *p.* 514;—*Roxb. fl. ind.* 2, *p.* 319;—*Rheed.* 1, *t.* 32.) রক্ত কাঞ্চন *Rukto-kanchun.* ♄ Serampore. Pateram. Monihari. Puraniya. (*Buch.*) Four petals light purple; the fifth deep purple, tinged with cream and red. Fl. large, Feb. and March; fr. R. S.
   - β. *candida*; (Bauhinia candida, *Roxb. fl. ind.* 2, *p.* 318;—not Ait.) কান রাজ *Kano-raj.* ♄ Bengal, (Serampore.) Kuvarikot. Islamnaghur. Oude. (*Buch.*) Assam. Nepal. Prome. Four petals white; the fifth somewhat sulphur within. Fl. large, Feb., March and April; fr. C. S.

8. *purpurea*, L. (*W. and A. pr.* 1, *p.* 296;—*J. Grah. Cat. B. pl. p.* 64;—*Roxb. fl. ind.* 2, *p.* 320; not DC.—B. coromandeliana, *DC. pr.* 2, *p.* 515;—*Rheed.* 1, *t.* 33.) দেব কাঞ্চন *Deva Kanchun.* L. ♄ Mauritius. Coromandel Mountains. Banks of the Irawaddi. Martaban. Assam. Oude. Kheree Pass. Fl. very large, deep rose, C. S.; fr. H. S.
9. *triandra*, Roxb. (*fl. ind.* 2, *p.* 320;—*G. Don's Mill. dict.* 2, *p.* 461.) ♄ Bengal. Fl. large, white, Oct. and Nov.; fr. C. S.
10. *retusa*, Roxb. (*fl. ind.* 2, *p.* 322;—*G. Don's Mill. dict.* 2, *p.* 46; not Poir.) ♄ Native place unknown. Fl. small, pale yellow, purple dotted, R. and C. S.; fr. March. From wounds made in the bark issues a brownish, mild gum, like that of the cherry-tree. (*Roxb.*)
11. *Vahlii*, W. and A. (*pr.* 1, *p.* 297;—*J. Grah. Cat. B. pl. p.* 64.—B. racemosa, *Vahl. symb.* 3, *p.* 56, *t.* 62;—*DC. pr* 2, *p.* 515;—*Roxb. fl. ind.* 2, *p.* 325.) L. ♄ ◡ Circars. Tull Ghauts. Ravines at Kandalla. Morung Mountains. Kheree Pass. Deyra-Dhoon. Kemaon. Fl. largish, white, gradually becoming cream-coloured, March and April, fr. C. S. *Leaves*, often a foot each way, firm, tough, durable, collected in the N. Circars, and sold in the bazars for plates, lining baskets, covering packets, thatching houses, &c. *Seeds* eaten raw; when ripe tasting like Cashew-nuts. (*Roxb.*) *Bark* employed in making rope.
12. *corymbosa*, Roxb. (*fl. ind.* 2, *p.* 329;—*DC. pr.* 2, *p.* 515;—*B. Reg. ann.* 1839, *t.* 47.) ♄ ◡ China. Fl. middle-sized, white, with a faint tinge of rose, fragrant, April; fr. R. S.
13. *anguina*, Roxb. (*Corom.* 3, *t.* 285;—*fl. ind.* 2, *p.* 328;—*DC. pr.* 2, *p.* 516;—*W. and A. pr.* 1, *p.* 298, excl. B. piperifolia, Roxb.;—*J. Grah. Cat. B. pl. p.* 64;—*Rheed.* 8, *t.* 30, 31.) L. ♄ ◡ S. Concans. Assam. Fl. very small, white, R. S.; fr. C. S.
14. *scandens*, L. (excl. syn. Rheed;—*Roxb. fl. ind.* 2, *p.* 326;—*Wight. icon*, 1, *t.* 264;—*J. Grah. Cat. B. pl. p.* 64.—B. Lingua, *DC. pr.* 2, *p.* 516;—*Rheed.* 8, *t.* 29?—*Rumph.* 5, *t.* 1.) L. ♄ ◡ Moluccas. Concans. Assam. Fl. smallish, whitish, becoming yellowish, March and April.; fr. Oct.
15. *semibifida*, Roxb. (*fl. ind.* 2, *p.* 330;—*Wall. pl. as. rar.* 3, *t.* 253.—*Wight. icon.* 1, *t.* 263.) ♄ ◡ Malay Islands. Fl. largish, white, becoming yellowish, Oct. and Nov.; fr. April and May.
16. *integrifolia*, Roxb. (*fl. ind.* 2, *p.* 331;—*G. Don's Mill. dict.* 2, *p.* 462.) L. ♄ ◡ Penang. Fl. small, pale yellowish. In H. C. G. Fl.?
17. *diphylla*, Buch. (*Symes' Trav. to Ava, t.* 7.—*G. Don's Mill. dict.* 2, *p.* 463.) ♄ Banks of the Irawaddi, at Yenangheun. Taong-Dong. Fl. middle-sized, pure white, June and July; fr. 0
18. *Roxburghiana*, (B. emarginata, *Roxb. in Hb. Lamb.*—*G. Don's Mill. dict.* 2, *p.* 462; not Mill. dict. *No.* 5, which is a S. American tree,

introduced into England in 1700.) ♄ ◡ On the sides of the Himalayas, above Rajpore. Sirmore. Kamrup. A brownish gum is collected from this plant. (*Royle.*)

19. *piperifolia*, Roxb. (*fl. ind.* 2, *p.* 327.) L. ♄ ◡ Assam. In H. C. G. Fl. ?

20. *bidentata*, Jack.—Penang,
21. *brachycarpa*, Wall. (*Cat.*)—Taong-Dong,
22. *polycarpa*, Wall. (*Cat.*)—Banks of the Attran.
23. *speciosa*, Roxb. (*Herb.*)

} In H. C. G. Fl. ?

24. *aurantiaca*, Bojer. ♄ Madagascar.

25. *Richardiana*, Wall. ♄ Madagascar. Fr. ripe in Dec.

CERCIS, L. (*DC. pr.* 2, *p.* 518.)

1. *canadensis*, L. (*DC. l. c* —Siliquastrum cordatum, *Mönch.*) ♄ N. America, from Canada to Virginia.—Introduced into H. C. G. in 1798, but had not fl. up to 1814.

CASTANOSPERMUM, Cunningh.

1. *australe*, Cunningh. (*Hook. B. misc. p.* 241. *t.* 51, 52.) ♄ Australia.

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* *Coulteria mollis*, Kth. ♄ S. America.—*C. tinctoria*, H. B. and Kth. ♄ Carthagena.—*Cæsalpinia abooensis*, Vaupell. ♄ Goozerat.—*C. Nuga*, DC. Rumph. 5, t. 50. ♄ S. Mahratta Country.—*C. brasiliensis*, L. ♄ W. Indies.—*C. bahamensis*, Lam. ♄ Bahama Islands.—*C. Crista*, L. ♄ Jamaica.—*C. Cacalaco*, H. B. and Kth. ♄ Mexico.—*Mezoneurum hymenocarpum*, W. and A. ♄ Taong-Dong.—*Pterolobium lacerans*, R. Br. ♄ Wight. icon. 1, t. 196. Vendalore. Circars. Tavoy.—*Pomaria glandulosa*, Cav. ♄ N. Spain.—*Tachigalia paniculata*, Aubl. ♄ Guiana.—*T. trigona*, L. ♄ Guiana.—*T. bijuga*, DC. ♄ Brazil.—*Moldenhawera floribunda*, Schrad. ♄ Brazil.—*Heterostemon mimosoïdes*, Desf. ♄ Brazil.—*Colvillea racemosa*, Bojer; B. M. 61, t. 3325-26. ♄ W. Coast of Africa. Cultivated at Madagascar.—*Cassia bracteata*, L. fil. ♃. Surinam.—*C. lanceolata*, Forsk. ♄ Egypt.—*C. fraxinifolia*, H. B. and Kth. ♄ S. America.—*C. Browniana*, H. B. and Kth. ♄ Mexico.—*C. strobilacea*, H. B. and Kth. ♄ S. America.—*C. chrysotricha*, Coll. ♄ Guiana.—*C. macranthera*, DC. ♄ Brazil.—*C. quinquangulata*, Rich. ♄ Cayenne.—*C. Apoucouita*, Aubl. ♄ Guiana.—*C. argentea*, H. B. and Kth. ♄ Mexico.—*C. oxyadena*, DC. ♄ Jamaica.—*C. tomentosa*, L. ♄ Neelgherries. S. America,—*C. mexicana*, Jacq. ♄ Mexico.—*C. montana*, Heyne. ♄ Neelgherries.—*C. Barclayana*, Swt. ♄ N. Holland.—*C. diphylla*, Lam. ♄ Cayenne. St. Domingo.—*C. Herbertiana*, Lindl.; B. Reg. 17, t. 1422. ♄ Barbadoes.—*Cathartocarpus ferrugineus*, G. Don. ♄ Brazil.—*C. moschatus*, G. Don. ♄ S. America.—*C. speciosus*, G. Don. ♄ S. America.—*C. Trinitatis*, G. Don. ♄ Trinidad.—*C. fistuloïdes*, G. Don. ♄ Mexico.—*Exostylis venusta*, Schott. ♄ Brazil.—*Metrocynia Commersonii*, DC. ♄ Madagascar.—*Melanoxylon Brauna*, Schott. ♄ Brazil.—*Acosmium lentiscifolium*, Schott. ♄ Brazil.—*Cyno-*

metra ramiflora, L. ♄ Rheed. 4, t. 31. Rumph. 1, t. 63. Trincomalee. S. Concan.—*Intsia madagascariensis*, DC. ♄ Madagascar.—*Eperua falcata*, Aubl. ♄ Guiana.—*Parivoa grandiflora*, Aubl. ♄ Cayenne.—*Outea multijuga*, DC. ♄ Guiana.—*O. guianensis*, Aubl. ♄ Guiana.—*Vouapa bifolia*, Aubl. ♄ Guiana. Brazil.—*V. Simira*, Aubl. ♄ Guiana.—*V. staminea*, DC. ♄. Guiana.—*Hymenæa venosa*, Vahl. ♄ Cayenne.—*H. confertiflora*, Mart. ♄ Brazil.—*H. Candolleana*, H. B. and Kth. ♄ Mexico.—*Trachylobium Martianum*, Hayne. ♄ Brazil.—*T. Horneman-nianum*, Hayne. ♄ S. America.—*T. Gärtnerianum*, Hayne. ♄ Madagas-car.—*T. floribundum*, Hayne. ♄ S. America.—*Schnella microstachya*, Raddi. ♄ ◡ Brazil.—*S. macrostachya*, Raddi. ♄ ◡ Brazil.—*Bauhinia divaricata*, L. ♄ S. America.—*B. Pes capræ*, Cav. ♄ Mexico.—*B. aurita*, Ait. ♄ Jamaica.—*B. Pauletia*, Pers. ♄ Panama.—*B. forficata*, Lk.; B. M. 66, t. 3741. ♄ Brazil.—*B. inermis*, Pers. ♄ Mexico.—*B. ungula*, Jacq. ♄ Caraccas.—*B. picta*, DC. ♄ Banks of the Magdalena.—*B. splendens*, H. B. and Kth. ♄ ◡ Banks of the Orinocco.—*B. Outi-monta*, Aubl. ♄ ◡ Guiana.—*B. guianensis*, Aubl. ♄ ◡ Guiana.—*B. suaveolens*, H. B. and Kth. ♄ ◡ N. Spain.—*B. cumanensis*, H. B. and Kth.; B. Reg. 14, t. 1133. ♄ ◡ Cumana.—*Palovea guianensis*, Aubl. ♄ Guiana.—*Bowdichia virgilioïdes*, H. B. and Kth. ♄ Mouth of the Orinocco, where it is called Alcornoco.—*Crudia spicata*, Willd. ♄ Guiana.—*C. aromatica*, Willd. ♄ Guiana.—*Dia-lium Indum*, L. ♄ Java.—*D. divaricatum*, Vahl. ♄ Guiana.—*Codarium acutifolium*, Afz. ♄ Sierra Leona.—*Vatairea guianensis*, Aubl. ♄ Guiana.

L. Mimoseæ, R. Br.

(*DC. pr.* 2, *p.* 424;—*W. and A. pr.* 1, *p.* 267.)

Entada, Adans, (*DC. l. c.*;—*W. and A. l. c.*)

1. *Pursætha*, DC. (*pr.* 2, *p.* 425;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 56.—E. monostachya, *DC. l. c.*—Pursætha, *L. No.* 644. *in fl. zeyl.*—Mimosa, *No.* 219. *L. fl. zeyl.*—M. scandens, *L.* ex. pte;—*Roxb. fl. ind.* 2. *p.* 554.—M. Entada, *L.*—Acacia scandens, *Willd.*—*Rheed.* 8. *t.* 32, 33, 34. *and* 9, *t.* 77;—*Rumph.* 5, *t.* 4.) গিলা গাছ *Gila-gachh.* ♄ ◡ Lanowlee grove, near Candalla. Pretty common along the range of the Ghauts. Wanjura in Bamsari. Connatare. Moluccas. Penang. Moul-mein. Banks of the Saluen. Silhet. Assam. Nepal. Fl. small, pale yellow, H. S.; fr. C. S.—*Seeds* used by the Ghaut-people as an antifebrile medicine (*Dr. Gibson*); by the natives in Nepal for washing their hair. (*Royle.*)
2. *polystachya*, DC. (*pr.* 2, *p.* 425;—Mimosa polystachya, *L.*—*Jacq. am. p.* 265, *t.* 183, *f.* 93.) L. ♄ ◡ Woods in Martinique and Guadeloupe. Guiana.—Introduced in 1840.

Mimosa, L. (*DC. pr.* 2, *p.* 425;—*W. and A. pr.* 1, *p.* 268.)

1. *sensitiva*, L. (*DC. o. c. p.* 426;—*B. Reg.* 1, *t.* 25;—*Roxb. H. B. p.* 41.) ♄ Brazil. Fl. small, purple, R. S.; fr. C. S.

2. *pudica*, L. (*DC. pr.* 2, *p.* 426;—*B. Reg.* 11, *t.* 941;—*Roxb. fl. ind.* 2, *p*, 564;—*J. Grah. Cat. B. pl. p.* 56.) নাজক *Najuk.* ♃. Brazil. Cultivated in India. Fl. small, purple, R. S.; fr. C. S.—Commonly called *Sensitive Plant*, the leaves falling on the slightest touch.
3. *hamata*, Willd. (*DC. pr.* 2, *p.* 427;—*W. and A. pr.* 1, *p.* 268;—*J. Grah. Cat. B. pl. p.* 56.) ♄ Peninsula of India. Common about Surat. Has been introduced into H. C. G.
4. *asperata*, Willd. (*DC. pr.* 2, *p.* 428; *mem.* 12, *t.* 63;—*Roxb. H. B. p.* 41.) ♄ Jamaica. Vera Cruz. Demerara. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
5. *rubicaulis*, Lam. (*DC. pr.* 2, *p.* 429;—*W. and A. pr.* 1, *p.* 268;—*J. Grah. Cat. B. pl. p.* 56.—M. octandra, *Roxb. Corom.* 2, *t.* 200;—*fl. ind.* 2, *p.* 564.) কচী কাঁটা *Kochee-kanta.* ♄ ◡ Peninsula of India. Bengal, (Serampore.) Silhet. Assam. Deyra-Dhoon. Fl. small, purple, gradually becoming whitish, H. S.; fr. C. S.
6. *mutabilis*, Roxb. (*fl. ind.* 2, *p.* 564.) ♄ ◡ Banks of the Ganges, near Benares. Fl. small, purple, gradually becoming whitish, R. S.; fr. C. S. (*Roxb.*) Perhaps not different from No. 5.

Parkia, R. Br. (*W. and A. pr.* 1, *p.* 279.)

1. *biglandulosa*, W. and A. (*l. c.*;—*J. Grah. Cat. B. pl. p.* 57.—Mimosa pedunculata, *Roxb. fl. ind.* 2, *p.* 551.) L. ♄ Malay Islands. Fl. small, white, May; fr. C. S. The Malays are said to be fond of the garlic-tasting seeds, and of the mealy matter which surrounds them.
2. *Roxburghii*, G. Don. (*Mill. dict.* 2, *p.* 397.—Mimosa biglobosa, *Roxb. fl. ind.* 2, *p.* 551; not Jacq.) L. ♄ Assam. Silhet. Fl. small, white, Dec.; fr. April.

Gagnebina, Neck.

1. *Richardiana*, Wall. ♄ Madagascar. C. S. 1841.

Inga, Plum. (*DC. pr.* 2, *p.* 432;—*W. and. A. pr.* 1, *p.* 268.)

1. *dulcis*, Willd. (*DC. o. c. p.* 436;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 56;—*Wight. icon.* 1, *t.* 198.—Mimosa dulcis, *Roxb. Corom.* 1, *t.* 99;—*fl. ind.* 2, *p.* 556.) L. ♄ Philippine Islands. Cultivated in India. Fl. small, yellowish-greenish, C. S.; fr. H. S. *Timber* of good quality. *Pods* filled with a sweet, firm, nourishing pulp. (*Roxb.*)
2. *Unguis cati*, Willd. (*DC. pr.* 2, *p.* 436.—Mimosa Unguis cati, *L.*;—*Jacq. schönb.* 2, *t.* 34;—*Roxb. H. B. p.* 40.) L. ♄ W. Indies. Cumana. Fl. small, pale greenish, with the filaments at base purplish, C. S.; fr. H. S. *Seeds* in America eaten by goats, and sometimes by the Negroes; frequently brought to England and strung as beads. *Bark* astringent, used in lotions and fomentations in the W. Indies. (*G. Don.*)
3. *xylocarpa*, DC. (*pr.* 2, *p.* 439;—*W. and A. pr.* 1, *p.* 269;—*J. Grah. Cat. B. pl. p.* 57.—Mimosa xylocarpa, *Roxb. Corom.* 1, *t.* 100;—

fl. ind. 2, *p.* 543.—Acacia xylocarpa, *Willd.*) L. ♄ Coromandel. Hilly parts of the Concan. Parr Ghaut. Pegu. Assam. Fl. small, white, H. S.; fr. Aug. *Timber* remarkably strong and durable, used for knees, crooked timbers, &c. in ship-building. (*Roxb.*)

4. *bigemina*, Willd. (*DC. pr.* 2, *p.* 439;—*J. Grah. Cat. B. pl. p.* 57.—Mimosa bigemina, *L.*; *Vahl.*—M. lucida, *Roxb. fl. ind.* 2, *p.* 544;—*Rheed.* 6, *t.* 12.) L. ♄ The Concans. Melloon. Prome. Assam. Lower Nepal. Fl. small, white, H. S.; fr. C. S.

5. *umbellata*, Willd. (*DC. pr.* 2, *p.* 439;—*G. Don's Mill. dict.* 2, *p.* 393; not p. 391. No. 59;—*W. and A. pr.* 1, *p.* 270.—I. corcondiana, *DC. o. c. p.* 441.—Mimosa umbellata, *Vahl.*—M. bigemina, *Kön. in hb. L.*; not L.—M. corcondiana, *Roxb. H. B. p.* 40;—*fl. ind.* 2, *p.* 556.) ♄ Coromandel. Fl. small, whitish, H. S.; fr. C. S.

6. *Kawahurunee*, (Mimosa heterophylla, *Roxb. fl. ind.* 2, *p.* 545; not Inga heterophylla, Willd.) L. ♄ Silhet. In H. C. G. fl. Feb., March and April; fr. May and June. (*Roxb.*) A useful timber-tree. (*Roxb.*)

7. *Kæringa*, (Mimosa Kæringa, *Roxb. fl. ind.* 2, *p.* 543.) L. ♄ Peninsula of Malacca. Has been introduced into H. C. G. before 1814. Seeds covered with an edible, fleshy pulp. (*Roxb.*)

8. *umbrosa*, Wall. (*pl. as. rar.* 2, *t.* 124;—*G. Don's Mill. dict.* 2, *p.* 393.) L. ♄ Khassya Mountains. Fl. small, fragrant, white; fr. R. S.

? 9. *anomala*, Kth. (*Mim.* 70, *t.* 22;—*DC. pr.* 2, *p.* 442.—Mimosa grandiflora, *L'Herit*;—*Roxb. H. B. p.* 41.—Acacia grandiflora, *Willd.*) ♄ Mexico, near Pascuaro, and on Mount Jorullo. In H. C. G. fl. R. and C. S. (*Roxb.*)

10. *madagascariensis*, Rich. Bourbon.

11. *fasciculata*, Willd. DC. ♄ Brazil.

DARLINGTONIA, DC. (*pr.* 2, *p.* 443.)

1. *brachyloba*, DC. (Acacia brachyloba, *Willd.*—Mimosa brachyloba, *Roxb. H. B. p.* 41.—M. illinoensis, *Michx.*;—*Roxb. H. B. p.* 41.) Meadows in the region of Illinois and Kentucky. ♃. Flowers small, white. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

DESMANTHUS, Willd. (*DC. pr.* 2, *p.* 443;—*W. and A. pr.* 1, *p.* 270.)

1. *natans*, Willd. (*DC. o. c. p.* 444;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 57.—Mimosa natans, *Roxb. Corom.* 2, *t.* 119; *fl. ind.* 2, *p.* 553.—M. prostrata, *Lam.*—Neptunia oleracea, *Lour.*—*Rheed.* 9, *t.* 20.) পানী নাজক *Panee-najuk.* ⊙ Tanks in both the Peninsulas of India. Cochin-China. Bengal, (Serampore.) Silhet. Assam. Fl. small, reddish, R. and C.; fr. C. S.

2. *triquetrus*, Willd. (*DC. pr.* 2, *p.* 444;—*W. and A. pr.* 1, *p.* 270;—*J. Grah. Cat. B. pl. p.* 57.—Mimosa triquetra, *Vahl.*;—*Roxb. fl. ind.* 2, *p.* 552.—M. natans, *L. fil. suppl.*; not Willd.) ♃. Coromandel. Surat. In H. C. G. fl. and fr. the whole year. (*Roxb.*)

3. *virgatus*, Willd. (excl. syn. Pluk. and Rheed.—*DC. pr.* 2, *p.* 445;—*W. and A. pr.* 1, *p.* 270;—*B. M.* 51, *t.* 2454.—Mimosa virgata,

L.;—Jacq. vind. t. 80;—*Roxb. H. B. p.* 41.) ♄ India. W. Indies. Fl. small, white, R. S.; fr. C. S.

4. *punctatus,* Willd. (*DC. pr.* 2, *p.* 445.—Mimosa punctata, *L.*—M. Adenanthera, *Roxb. fl. ind.* 2, *p.* 554.) ♄ Jamaica. St. Domingo. Guadeloupe. Fl. small, white, and fr. the whole year.

CAILLEA, G. and P. (*Lindl. Nat. Syst. p.* 157.—Dichrostachys, *W. and A. pr.* 1, *p.* 271; according to Lindl.)

1. *cinerea,* G. and P. (Dichrostachys cinerea, *W. and A. l. c.;—Wight. icon.* 2, *t.* 357;—*J. Grah. Cat. B. pl. p.* 57.—Mimosa cinerea, *L.;—Roxb. Corom.* 2, *t.* 174; *fl. ind.* 2, *p.* 561.—Desmanthus cinereus, *Willd.;—DC. pr.* 2, *p.* 445.—Acacia Dalea, *Desv.;—DC. o. c. p.* 459.—*Burm. zeyl. t.* 2.) ♄ Fl. small, rose-coloured yellow, H. S.; fr. Aug. Ceylon. Coromandel. Common on the sterile plains of the Deccan. Delhi. Patna. Paghamew.

ADENANTHERA, L. (*DC. pr.* 2, *p.* 446;—*W. and A. pr.* 1, *p.* 271.)

1. *pavonina,* L. (*DC. l. c.;—W. and A. l. c.;—J. Grah. Cat. B. pl. p.* 57;—*Roxb. fl. ind.* 2, *p.* 370;—*Wight. ill.* 1, *t.* 80.—*Rheed.* 6, *t.* 14;—*Rumph.* 3, *t.* 109.) রক্ত চন্দন *Ruckto-chundun.* L. ♄ Moluccas. Both Peninsulas of India. Bengal, (Serampore.) Silhet. Assam. Fl. small, yellow, fragrant, H. S.; fr. R. and C. S. Inner *wood* of large trees deep red, hard, durable and yielding a dye, with which the Brahmins, after religious bathing, mark their foreheads. *Seeds* bright scarlet, worn by women as beads, and on account of their equality (each of them weighing four grains) used by goldsmiths and jewellers for weights. (*Roxb.*)

2. *falcata,* L. (*DC. pr.* 2, *p.* 446;—*Rumph.* 3, *t.* 111.) L. ♄ Moluccas. Fl. small, yellowish. Introduced in 1838.

PROSOPIS, L. (*DC. pr.* 2, *p.* 446;—*W. and A. pr.* 1, *p.* 271.)

1. *spicigera,* L. (*DC. l. c.;—W. and A. l. c.;—Roxb. H. B. p.* 32;—*Corom.* 1, *t.* 63;—*J. Grah. Cat. B. pl. p.* 57.—P. spicata, *Burm. ind. t.* 25, *f.* 3.—Adenanthera aculeata, *Roxb. fl. ind.* 2, *p.* 371.) শমী *Shumee.* ♄ Coromandel. Goozerat. Furukabad. Delhi. Saharunpore. Fl. small, yellow, C. S.; fr. R. S. *Pods* containing a large quantity of a brown, mealy, sweetish substance, which the natives eat. (*Roxb.*)

2. *dulcis,* Kth. (*Mim. p.* 110, *t.* 34;—(*DC. pr.* 2, *p.* 447.—Acacia lævigata, *Willd.*—Mimosa lævigata, *Roxb. H. B. p.* 41.) ♄ N. Spain. Fl. small, greenish-white. Introduced into H. C. G. in 1811 from the Mauritius, but had not fl. in 1814.—*Pulp* of the pods very sweet, and eaten by the inhabitants of N. Spain. (*G. Don.*)

ACACIA, Neck. (*DC. pr.* 2, *p.* 448;—*W. and A. pr.* 1, *p.* 272.)

1. *Catechu,* Willd. (*DC. pr.* 2, *p.* 458;—*W. and A. l. c.;—J. Grah. Cat. B. pl. p.* 58.—A. polyacantha, *Willd.;—DC. o. c. p.* 459.—A. Wallichiana, *DC. o. c. p.* 458.—Mimosa Catechu, *L.; Roxb. fl. ind.* 2, *p.* 562, excl. *No.* 38, *p.* 563; *No.* 41 and 42; *Corom.* 2, *t.* 174;—

M. Catechuoïdes, *Roxb. fl. ind.* 2, *p.* 562.) খএর গাছ *Khuera-ghach.* ♄ Coromandel. Hills about Vear, Salsette; and in some parts of the N. Concan. Yenangheun. Tavoy. Bengal, (Serampore.) Monghir. Rajmahl. Morung Mountains. Assam. Delhi. Nepal. Fl. small, white, H. and R. S.; fr. C. S. The old high-coloured *wood*, owing to the transference into it of astringent matter, is used for making the astringent extract known under the name of *Catechu*, formerly called *Japan earth.*

2. *Suma*, Buch. (Mimosa Suma, *Roxb. fl. ind.* 2, *p.* 563, excl. syn. Willd.) শাঁই কাঁটা *Shai-kanta.* ♄ Bengal, (Serampore, Calcutta.) Fl. small, white, R. S.; fr. C. S.
3. *Sundra*, DC. (*pr.* 2, *p.* 458;—*W. and A. pr.* 1, *p.* 273.—A. Chundra, *Willd.*—Mimosa Sundra, *Roxb. Corom.* 3, *t.* 225; *fl. ind.* 2, *p.* 562.) ♄ Mountains of Coromandel. Soonderbuns. Fl. small, yellow, R. S.; fr. C. S. *Wood* hard, chocolate-coloured. (*Roxb.*)
4. *ferruginea*, DC. (*pr.* 2, *p.* 458;—*W. and A. pr.* 1, *p.* 273.—Mimosa ferruginea, *Roxb. fl. ind.* 2, *p.* 561.) L. ♄ Circars. Courtallum. Fl. small, pale yellow. In H. C. G. fl. H. S.; fr. C. S. (*Roxb.*) *Bark* very astringent. (*Roxb.*)
5. *latronum*, Willd. (*DC. pr.* 2, *p.* 460;—*W. and A. pr.* 1, *p.* 273;—*J. Grah. Cat. B. pl. p.* 58.—Mimosa latronum, *Kön.*;—*L. fil. suppl.* excl. spec. char.;—*Roxb. fl. ind.* 2, *p.* 559.—M. cornigera, *L. suppl. p.* 438.) ♄ Coromandel. Common in the barren tracts of the Deccan. Fl. small, fragrant, white, becoming yellowish. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
6. *modesta*, Wall. (*pl. as. rar.* 2, *t.* 130;—*G. Don's Mill. dict.* 2, *p.* 412;—*J. Grah. Cat. B. pl. p.* 58.) ♄ In the dry Bangur land between Saharunpore and Delhi. Fl. small, white, fragrant. Probably in H. C. G., as the shrub has been introduced from Bengal into the Horticultural Society's Garden at Bombay.
7. *dumosa*, W. and A. (*pr.* 1, *p.* 274.—Mimosa latronum, *L. fil. suppl.* as to spec. char.—M. dumosa, *Roxb. fl. ind.* 2, *p.* 559.) ♄ In the dry Bangur land between Saharunpore and Delhi. Fl. small, whitish, R. and C. S.
8. *lophantha*, Willd. (*DC. pr.* 2, *p.* 457;—*B. Reg.* 5, *t.* 361;—*B. M.* 47, *t.* 2108.—Mimosa distachya, *Vent.*—M. elegans, *Andr.*) ♄ N. Holland. Fl. small, yellowish. Has been introduced into H. C. G. Fl.?
9. *stipulata*, DC. (*pr.* 2, *p.* 469;—*W. and A. pr.* 1, *p.* 274;—*J. Grah. Cat. B. pl. p.* 58.—Mimosa stipulata, *Roxb. H. B. p.* 40.—M. stipulacea, *Roxb. fl. ind.* 2, *p.* 549.) L. ♄ Courtallum. Common in the Ghauts, about Kanalla, &c. Banks of the Attran. Assam. Deyra-Dhoon. Fl. small, white rose-coloured, H. S.; fr. C. S. One of the largest trees of the genus.
10. *Smithiana*, Wall. (Mimosa Smithiana, *Roxb. fl. ind.* 2, *p.* 550.) L. ♄ Chittagong. Silhet. Fl. small, white, May; fr. Dec.

11. *arborea*, Willd. (*DC. pr.* 2, *p.* 469.—Mimosa arborea, *L.*—M. filicifolia, *Lam.*—*Sloan. hist. Jam.* 2, *t.* 182, *f.* 1, 2.) ♄ Jamaica. Portorico. Fl. small, pale flesh-coloured. Has been introduced into H. C. G. Fl. ?
12. *amara*, Willd. (*DC. pr.* 2, *p.* 469 ;—*W. and A. pr.* 1, *p.* 274 ;—*J. Grah. Cat. B. pl. p.* 58 ?—Mimosa amara, *Roxb. Corom.* 2, *t.* 122 ; *fl. ind.* 2, *p.* 548.) ♄ Coromandel. Fl. small, yellow, H. S. ; fr. C. S. *Bark* bitter, astringent. (*Roxb.*)
13. *mollis*, Wall. (*pl. as. rar.* 2, *t.* 177 ;—*G. Don's Mill. dict.* 2, *p.* 421.) ♄ Himalayas ; alt. 6000 f. in 30° N. L. Fl. small, yellow. Has been introduced into H. C. G. Fl. ?
14. *fruticosa*, (Mimosa fruticosa, *Roxb. fl. ind.* 2, *p.* 549.) L. ♄ China. Fl. small, white, April ; fr. 0.
15. *myriophylla*, Grah. (*Wall. Cat.*—Mimosa microphylla, *Roxb. fl. ind.* 2, *p.* 549 ; not Acacia microphylla, Willd.) 5 Khassya Mountains. Fl. minute, greenish yellow. In H. C. G. fl. May and June ; fr. March and April. With the *bark* of this tree the Mountaineers make an intoxicating liquor, which they drink as we do beer. (*Roxb.*)
16. *Wightii*, Grah. (*W. and A. pr.* 1, *p.* 274.—Mimosa pulchella, *Roxb. fl. ind.* 2, *p.* 548 ; not Acacia pulchella, R. Br.) ♄ Malabar. Dindygul. Introduced into H. C. G. by Dr. Berry, in 1804, but had not fl. up to 1814.
17. *odoratissima*, Willd. (*DC. pr.* 2, *p.* 466 ;—*W. and A. pr.* 1, *p.* 275 ; —*J. Grah. Cat. B. pl. p.* 58.—A. lomatocarpa, *DC. o. c. p.* 467.—Mimosa odoratissima, *L. suppl. p.* 437 ;—*Roxb. Corom.* 2, *p.* 120 ;—*fl. ind.* 2, *p.* 546.—M. marginata, *Lam.*—*Rheed.* 6, *t.* 5.) L. ♄ Coromandel. The Concans and Neelgherries. Moulmein. Tavoy. Monghir Mountains. Assam. Fl. pale, yellowish, fragrant, May and June ; fr. C. S. *Timber* hard, strong.
18. *elata*, Grah. (*Wall. Cat.*—Mimosa elata, *Roxb. fl. ind.* 2, *p.* 546.) L. ♄ Banks of the Irawaddi, and the Attran. Tavoy. Assam. Deyra-Dhoon. Fl. small, white, May and June ; fr. C. S. *Timber* of good quality. (*Royle.*)
19. *Kalkora*, (Mimosa Kalkora, *Roxb. fl. ind.* 2, *p.* 547.) L. ♄ Assam. In H. C. G. fl. May and June ; fr. C. S.
20. *Sirissa*, Buch. (A. speciosa, *Willd.*;—*DC. pr.* 2, *p.* 467 ;—*W. and A. pr.* 1, *p.* 275 ;—*J. Grah. Cat. B. pl. p.* 58.—Mimosa speciosa, *Jacq. ic. rar.* 1, *p.* 198.—M. Sirissa, *Roxb. fl. ind.* 2, *p.* 544.) শিরীশ *Sireesha*. L. ♄ Coromandel. Bombay. Paghamew. Chittagong. Bengal, (Serampore.) Soonderbuns. Silhet. Assam. Monghir. Deyra-Dhoon. Fl. small, white, fragrant, H. and R. S. ; fr. C. S. *Timber* large, dark coloured, very hard, close-enough-grained for furniture. Large masses of very pure *gum* are often seen on this tree. (*Roxb.*)
21. *frondosa*, Willd. (*DC, pr.* 2, *p.* 468 ;—*W. and A. pr.* 1, *p.* 275.—A. Coranja, *Buch. in Wall. Cat.*) ♄ Patna. (Buch.) Fl. small, white,

R. S.; fr. C. S. Pods three to five inches long, 7 lines broad, 10-20 seeded.

22. *glauca*, Willd. (*DC. pr.* 2, *p.* 467;—*J. Grah. Cat. B. pl. p.* 58.—Mimosa glauca, *L.*;—*Roxb. H. B. p.* 41.) L. ♄ S. America. Fl. small, white, R. S.; fr. C. S. Common in gardens.

23. *tomentosa*, Willd. (*DC. pr.* 2, *p.* 462;—*W. and A. pr.* 1, *p.* 276;—*J. Grah. Cat. B. pl. p.* 59.—Mimosa tomentosa, *Roxb. fl. ind.* 2, *p.* 558; *Rottl.*—M. Kleinii, *Poir.*) শালশাঁই বাবলা *Salsain-babula.* ♄ Coromandel. Common in Deccan and Kandesh jungles, also in the Sholapore districts. Bengal, (Serampore.) Fl. small, white, rather offensive, C. and H. S.; fr. R. S.

24. *horrida*, Willd. (*DC. pr.* 2, *p.* 460.—M. horrida, *L.*—M. leucacantha, *Jacq. Schönb. t.* 393.—M. eburnea, *Lam.* not Willd.—Acacia capensis. *Burch.*—Mimosa capensis, *Burm.*; *Roxb. H. B. p.* 41.) ♄ S. Africa. Arabia. Fl. small, yellow. Introduced into H. C. G. in 1799, but had not fl. up to 1814.

25. *tortuosa*, Willd. (*DC. pr.* 2, *p.* 461.—Mimosa tortuosa, *L.*;—*Roxb. H. B. p.* 41.) ♄ Sandy fields of Jamaica. St. Thomas. Fl. small, yellow. Introduced into H. C. G. in 1807, but had not fl. up to 1814.

26. *arabica*, Willd. (*DC. pr.* 2, *p.* 461;—*W. and A. pr.* 1, *p.* 277;—*J. Grah. Cat. B. pl. p.* 59.—Mimosa arabica, *Lam.*;—*Roxb. Corom.* 2, *t.* 149;—*fl. ind.* 2, *p.* 557.) বাবলা *Babula.* ♄ Peninsula of India. Bengal, (Serampore.) Sukanaghur. Saharunpore. Fl. small, bright-yellow, fragrant, May and Oct.; fr. March. Produces, with A. speciosa, and Vachellia Farnesiana, a gum, which is used as a substitute for Gum Senegal, and Gum Arabic. *Wood* strong, tough, durable, making excellent knees and crooked timber in ship-building. *Bark* astringent, used for tanning leather, and to dye various shades of brown. A decoction of the bark employed as a substitute for soap. (Roxb.) *Seeds* and *pods* of great value to the shepherd in the hot season, as food for his flock, when grass is scarce. (*Dr. Gibson.*) This officer suggested some years ago to plant the waste part of the Deccan with this tree, as it grows rapidly and requires no water.

27. *vera*, J. Bauh. (*DC. pr.* 2, *p.* 461.—Mimosa nilotica, *L.*) *True Acacia or Gum Arabic-tree. Egyptian thorn.* ♄ Africa, from Senegal to Egypt. Fl. small, yellow. Has been introduced into H. C. G. Fl.?

28. *leucophlæa*, Willd. (*DC. pr.* 2, *p.* 462;—*W. and A. pr.* 1, *p.* 277;—*J. Grah. Cat. B. pl. p.* 59.—A. alba, *Willd. DC. l. c.*—Mimosa leucophlæa, *Roxb. Corom.* 2, *t.* 150;—*fl. ind.* 2, *p.* 558.—M. alba, *Rottl.*) ♄ Coromandel. Common in some parts of the South Mahratta country, and in the Sholapore districts between the Bheema and Krishna. Delhi. Fl. small, pale yellowish, R. S.; fr. C. S. *Bark* astringent. The natives distil an ardent spirit from it, mixed with

palm-wine and a little coarse sugar. On this account, the trees are farmed in some places from Government. (*Roxb. Law.*)

29. *pennata*, Willd. (*DC. pr.* 2, *p.* 464 ?—*W. and A. pr.* 1, *p.* 277 ;—*J. Grah. Cat. B. pl. p.* 59.—A. megaladena, *Desv.* ;—*DC. o. c. p.* 465.—Mimosa pennata, *L.* ; excl. syn.—M. torta, *Roxb. fl. ind.* 2, *p.* 566.—M. ferruginea, *Rottl.* ;—*DC. pr.* 2, *p.* 431.) L. ♄ ◡ Courtallum. Neelgherries. Ceylon. Gutpurba, near Duddi. Paghamew. Fl. small, yellow, R. S. ; fr. H. S.

30. *rugata*, Buch. (A. concinna, *DC.* ; *pr.* 2, *p.* 464 ;—*W. and A. pr.* 1, *p.* 277 ;—*J. Grah. Cat. B. pl. p.* 59.—Mimosa concinna, *Willd.* ;—*Roxb. fl. ind.* 2, *p.* 565.—M. rugata, *Lam.* ;—*DC. pr.* 2, *p.* 431.—M. abstergens, *Spr.* ;—*DC. l. c.*—M. saponaria, *Roxb.* ; *in E. I. C. mus. t.* 498.—*Burm. zeyl. t.* 1.) रीठा *Reeta*. L. ♄ ◡ Peninsula of India. Banks of the Attran. Moulmein. Bengal, (Serampore.) Silhet. Assam. Nepal. Fl. small, white, R. S. ; fr. C. S. The thick, succulent *legumes* are sold in the bazar, and used as soap for washing the hair, &c. They are also employed by the Hindoos for marking the forehead. The *leaves* are acid, and used in cookery instead of tamarinds. (*Nimmo.*)

31. *Buchananiana*, (Mimosa pennata, *Roxb. fl. ind.* 2, *p.* 565 ; excl. syn. Willd.—A. pennata, *Buch. in Wall. Cat.*) L. ♄ ◡ Chittagong. Silhet. Assam. In H. C. G. fl. R. S. ; fr. C. S. (*Roxb.*)

32. *cæsia*, W. and A. (*pr.* 1, *p.* 278.—A. alliacea, *Buch.*—A. Arrar, *Buch.*—A. intsioïdes, *DC. pr.* 2, *p.* 464.—Mimosa cæsia, *L.* ; as to the reference to Plukenet's description ; *Roxb. ? fl. ind.* excl. syn. Willd.—M. tenuifolia, *Roxb. H. B. p.* 41.—*Pluk. t.* 330, *f.* 1.) ♄ ◡ Coromandel. Olipur. Monghir. Saharunpore. In H. C. G. fl. R. S. ; fr. C. S. (*Roxb.*)

33. *Intsia*, Willd. (*DC. pr.* 2, *p.* 464 ;—*W. and A. pr.* 1, *p.* 278 ;—*J. Grah. Cat. B. pl. p.* 59.—Acacia cæsia, *Willd.* ; excl. syn. Pluk ; *DC. pr.* 2, *p.* 465.—Mimosa Intsia, *L.* ;—*Roxb. fl. ind.* 2, *p.* 565. —M. cæsia, *L.* ; excl. syn. Pluk, and therefore the name.—*Rheed.* 6. *t.* 4,) ♄ ◡ Coromandel. Common on the Ghauts and throughout the jungly tracts of the Concan. Nawaubgunj. (Buch.) In H. C. G. fl. R. S. ; fr. C. S. (*Roxb.*)

34. *semicordata*, Roxb. (*H. B. p.* 40.) ♄ Malabar. Introduced into H. C. G. in 1808, but had not fl. up to 1814.

35. *diluta*, Wall. Nagpur.

36. *Cavalum*, Buch. (*Roxb. H. B. p.* 41.) ♄ Bengal. In H. C. G. fr. C. S. (*Roxb.*)

37. *herbacea*, W. Ham. (*Roxb. H. B. p.* 41.) ♃. America. In H. C. G. fl. R. S. ; fr. C. S. (*Roxb.*)

38. *M. miamensis*, W. Ham. (*Roxb. H. B. p.* 41.) ♃. America. In H. C. G. fl. R. S. (*Roxb.*)

39. *M. altissima*, W. Lockhead. (*Roxb. H. B. p.* 41.) ♄ ◡ Trinidad. In H. C. G. fl. Sept. and Oct. (*Roxb.*)

VACHELLIA, W. and A. (Pr. 1, p. 272.)

1. *Farnesiana*, W. and A. (*l. c.*;—*J. Grah. Cat. B. pl. p.* 58;—*Wight. icon.* 1, *t.* 300.—Mimosa Farnesiana, *L.*;—*Roxb. fl. ind.* 2, *p.* 557.—M. indica, *Poir.*—Acacia Farnesiana, *Willd.*;—*DC. pr.* 2, *p.* 461.—A. Indica, *Desv.*;—*DC. o. c. p.* 462.) গুয়া বাবলা *Gooya-babula.* L. ♄. Fl. small, yellow, fragrant, Dec. and Jan.; fr. R. S. *Wood* hard, tough, making excellent ship-knees and tent-pegs. Both Peninsulas of India. Bengal, (Serampore.) Scinde. Silhet. Assam. Nepal.

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* *Entada Gigalobium*, DC. ♄ ◡ W. Indies.—*Mimosa polydactyla*, H. and B. ♄ Guiana.—*Gagnebina tamariscina*, DC. ♄ Mauritius.—*G. axillaris*, DC. ♄ Mauritius.—*Inga geminata*, W. and A. ♄ Ceylon.—*I. Konigii*, W. and A. ♄.—*I. purpurea*, Willd.; B. Reg. 2, t. 129, ♄ Martinique.—*I. Jiringa*, Jack. ♄ Penang. Malacca.—*I. clypearia*, Jack. Penang. Singapore.—*I. Houstonii*, DC. (Acacia Houstonii, Willd.; B. Reg. 1, t. 98.) ♄ Mexico.—*I. alba*, Willd. ♄ Cayenne.—*I. rhoifolia*, Willd. ♄ Brazil.—*I. Burgoni*, DC. ♄ Guiana.—*Schrankia aculeata*, ♃. Vera Cruz.—*S. leptocarpa*, DC. ♃. St. Domingo.—*S. hamata*, H. and B. ♃. S. America.—*Desmanthus lacustris*, Willd. ♃. S. America.—*D. diffusus*, Willd. ♃. Cumana.—*D. strictus*, Bertol. ♄ W. Indies.—*Prosopis cumanensis*, Kth. ♄ Cumana.—*P. domingensis*, DC. ♄ St. Domingo.—*P. juliflora*, DC. ♄ Jamaica.—*P. pallida*, Kth. ♄ Peru.—*Acacia procera*, Willd. (Mimosa procera, Roxb. Corom. 2, t. 121.) ♄ Coromandel.—*A. planifrons*, W. and A. ♄ Tanjore.—*A. Roxburghii*, W. and A. (Mimosa eburnea, Roxb. Corom. 2, t. 199.) ♄ Coromandel.—*A. eburnea*, Willd. ♄ Coromandel.—*A. pilosa*, Bert. ♄ Jamaica.—*A. hispidissima*, DC. ♄ Jamaica.—*A. lophanthoïdes*, DC. ♄ Jamaica.—*A. pulcherrima*, Willd. ♄ Brazil.—*A. viridiflora*, Kth. ♄ S. America.—*A. tamarindifolia*, Willd. ♄ W. Indies.—*A. centrophylla*, DC. ♄ Jamaica.—*A. Guilandina*, DC. ♄ ◡ Cayenne.—*A. formosa*, Kth. ♄ Mexico.—*A. leucocephala*, Pers. ♄ S. America.—*A. brasiliensis*, Spreng. ♄ Brazil.

ORDER CVII.—CONNARACEÆ, R. Br.—Lindl. Nat. Syst. p. 157.

Trees or shrubs of 5 genera. Of these, DC. pr. enumerates 7 species for S. America; 8 for Sierra Leona and Owaree; 2 for Madagascar; and 1 for Mauritius. In the E. Indies, our materials mention 6 species of *Connarus;* (Peninsula of India, Chittagong. Silhet.) 1 of *Omphalobium;* (Moluccas.) 5 of *Rourea;* (Ceylon. Silhet. Nicobar Islands,) and 3 of *Tetradium.* (Silhet? Cochin China.) Two species of Connarus, (Roxburghii and microphyllus, Hook. and Arn.) have been found in China. They belong, however, both to Rourea, according to W. and A. Properties unknown.

CONNARUS, L. (*DC. pr.* 2, *p.* 84 ;—*W. and A. pr.* 1, *p.* 143.)

1. *paniculatus*, Roxb. (*fl. ind.* 3, *p.* 139.) L. ♄ Chittagong. Fl. small, yellow. In H. C. G. fl. June. (*Roxb.*) A large timber-tree.
2. *nitidus*, Roxb. (*H. B. p.* 49.) ♄ Silhet. Fl. small, whitish, H. S. ; fr. Sept. and Oct.
3. *igneus*, Wall. MSS. ♄ Native place ? Introduced in 1840.

ROUREA, Aubl. (*W. and A. pr.* 1, *p.* 143.)

1. *Sookurthoontee*, (Cnestis monadelpha, *Roxb. fl. ind.* 2, *p.* 454.) শূকর ঠুঁটী *Sookur-toontee.* ♄ Chittagong. Silhet. Fl. small, white, fragrant, June and July ; fr. Oct.

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* *Connarus monocarpus*, L. ; Rheed. 7, t. 26. ♄ Travancore.—*C. pinnatus*, Lam. ; Wight. ill. 1, t. 64. ♄ Coromandel. Concan. Goa jungles. —*C. pubescens*, DC. ♄ Guiana.—*Omphalobium Lamberti*, DC. ♄ Guiana.—*O. Perrottetii*, DC. ♄ Guiana.—*Rourea santaloïdes*, W. and A. ♄ Ceylon.—*R. emarginata*, W. and A. (Cnestis emarginata, Jack.)—*R. florida*, W. and A. (Cnestis florida, Jack.)—*R. mimosoïdes*, W. and A. (Cnestis mimosoïdes, Jack.) ♄ Nicobar Islands.—*Cnestis glabra*, Lam. ♄ Mauritius. Bourbon.

ORDER CVIII.—CHRYSOBALANACEÆ, Lindl. Nat. Syst. p. 158.

THE COCOA-PLUM TRIBE.

Trees or shrubs, referred by Lindl. to 11 genera. Of these, DC. pr. and Spreng. syst. assign 33 species to S. America, Mexico and the W. Indies ; 1 to Georgia in N. America ; 2 to Sierra Leone ; 1 to Senegal ; 1 to Bourbon ; — to Madagascar ; and 1 to New Holland. Two species have been found in India : *Prinsepia utilis*, in the Himalayas, and a *Parinarium ?* at Singapore. *Fruit* of several species of Chrysobalanus and Parinarium eatable.

CHRYSOBALANUS, L. (*DC. pr.* 2, *p.* 525.)

1. *Icaco*, L. (*DC. l. c.—Jacq. am.* 154, *t.* 94.) ♄ S. America, and the W. Indies ; by the sea-side. Southern parts of N. America. Fl. white. Fruit eatable. Introduced into H. C. G. before 1814. Fl. ?

PRINSEPIA, Royle. (*Ill. p.* 206.)

1. *utilis*, Royle. (*o. c. t.* 38, *f.* 1.) ♄ Common on the driest and most barren rocks of the Himalayas, as in the neighbourhood of Muttiana, in N. lat. $31\frac{1}{2}°$, and at elevations of 5-6000 feet, where its seeds yield by expression a useful oil. Fl. nearly middle-sized, whitish. Has been in the garden here several years without flowering.

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* *Chrysobalanus oblongifolius*, Schott. ♄ Brazil.—*C. macrophyllus*, Schott. ♄ Brazil.—*Moquilea guianensis*, Aubl. ♄ Guiana.—*M. ca-*

nomensis, Mart. ♄ Brazil.—*Conepia guianensis*, Aubl. ♄ Guiana.—*C. Parillo*, DC. ♄ Guiana,—*Acioa guianensis*, Aubl. ♄ Guiana.—*Parinarium campestre*, Aubl. ♄ Guiana.—*P. senegalense*, Perr. ♄ Senegal.—*P. excelsum*, Hort. Trans. ♄ Sierra Leone. Introduced at Goa.—*Grangeria borbonica*, Lam. ♄ Bourbon.—*Licania incana*, Aubl. ♄ Guiana.—*L. humilis*, Cham. ♄ Brazil.—*Hirtella triandra*, Swz. ♄ W. Indies. New-Spain.—*H. rugosa*, Pers. ♄ St. Domingo. St. Thomas.—*H. hirsuta*, Lam. ♄ Cayenne.—*H. racemosa*, Lam. ♄ Guiana.

ORDER CIX.—CALYCANTHACEÆ, Lindl. Nat. Syst. p. 159.

THE CAROLINA ALLSPICE TRIBE.

Shrubs, referred by Lindl. to 2 genera: *Calycanthus*, with 3 N. American species; and *Chimonanthus*, with a Japanese one. Properties unimportant.

CALYCANTHUS, L. (*DC. pr.* 3, *p.* 2.)

1. *floridus*, L. (*DC. l. c.*;—*B. M.* 14, *t.* 503;—*Roxb. H. B. p.* 39.) ♄ Shady banks of rivulets of Carolina. Fl. large, dark red-brown, sweetly apple-scented. *Wood* and *roots* strongly smelling of Camphor. Introduced into H. C. G. in 1804, but had not fl. up to 1814.

CHIMONANTHUS, Lindl. (*DC. pr.* 3, *p.* 2.)

1. *præcox*, Lindl. (*in Wall. Cat.*—C. fragrans, *Lindl.*; *B. Reg.* 5, *t.* 404.—Calycanthus præcox, *L.*;—*B. M.* 13, *t.* 466;—*Roxb. fl. ind.* 2, *p.* 672.) ♄ Japan. Fl. large, greenish-white, inside crimson spotted, fragrant, Dec., Jan. and Feb.; fr. 0.

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* *Chimonanthus præcox*, β. *grandiflorus*, Lindl. (C. fragrans, β. grandiflorus, Lindl.; B. Reg. 6, t. 451.) ♄ Japan.

ORDER CX.—CUNONIACEÆ, R. Br.—Lindl. Nat. Syst. p. 161.

Trees or shrubs, by Lindl. referred to 13 or 14 genera. Of these, DC. pr. enumerates 31 species for S. America and the W. Indies; 6 for New Holland and the South Sea Islands; 1 for Madagascar; 1 for Bourbon; 2 for S. Africa; and 4 for Java. Of the latter, 2 belong to *Cunonia*; and 2 to *Arnoldia*. Properties little known.

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* *Weinmannia glabra*, L. fil. ♄ W. Indies.

ORDER CXI.—SAXIFRAGACEÆ, DC.—Lindl. Nat. Syst. p. 162.

THE SAXIFRAGE TRIBE.

Shrubs or undershrubs, seldom trees, most frequently little elegant herbs, exclusive of Parnassia, referred by Lindl. to 28 genera. Of these, DC. pr. assigns about 75 species to Europe; 42 to N. America; 20 to Siberia; 6 to S. America; 5 to Japan; 3 to Caucasus; 3 to Melville Island; 3 to Greenland; 2 to the Levant; 2 to N. Africa; 2 to the Straits of Magellan; 1 to China; 1 to Senegal; 1 to Nubia; 1 to S. Africa; 2 to N. W. Africa; 1 to Madeira; 1 to Iceland; 1 to Spitzbergen; 1 to Dahuria; 1 to Altaï; and 1 to the Sandwich Islands. In the E. Indies have been discovered about 34 species, viz. 6 of *Hydrangea*, (Nepal, Java, Assam,) 1 of *Ciamitis*, (Java,) 1 of *Adamia*, (Nepal,) 21 of *Saxifraga*, (Nepal, Khassya Mountains, Peer Punjal, Kunawar,) 1 of *Chrysosplenium*, (Nepal,) 1 of *Tiarella*, (Nepal,) 1 of *Astilbe*, (Nepal,) and 2 of *Vahlia*, (Coast of Coromandel.) Properties of no importance.

HYDRANGEA, L. (*DC.* 3, *p.* 13.)

1. *Hortensia*, DC. (*l. c.*;—*J. Grah. Cat. B. pl. p.* 84.—H. opuloïdes, *Lam.*—H. hortensis, *Sm.*;—*B. M.* 13, *t.* 438;—*Roxb. H. B. p.* 34.) ♄ China. Japan. Fl. largish, rose-coloured, C. S.; fr. 0.

ADAMIA, Wall. (*DC. pr.* 3, *p.* 16.)

1. *cyanea*, Wall. (*tent. fl. nep.* 46, *t.* 36;—*pl. as. rar.* 3, *p.* 213;—*B. M.* 58, *t.* 3046.) ♄ Nepal. Fl. middle-sized, blue. Has been ten years in the garden here, without flowering.

SAXIFRAGA, L. (*DC. pr.* 3, *p.* 17.)

1. *ligulata*, Wall. (*DC. o. c. p.* 38;—*B. M.* 62, *t.* 3406.) ♃. Deyrah-Dhoon. Kemaon. Fl. large, white with a tinge of rose. Has been cultivated here for more than five years, without flowering.

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* *Vahlia oldenlandioïdes*, Roxb. ☉ Tranquebar.—*V. viscosa*, Roxb. ☉ Tranquebar.—*Hydrangea quercifolia*, Bartr.; B. M. 25, t. 975. ♄ Florida.

ORDER CXII.—CRASSULACEÆ, DC.—Lindl. Nat. Syst. p. 163.

THE HOUSE-LEEK TRIBE.

Succulent herbs and shrubs, by Lindl. referred to 22 genera. Of these DC. pr. ascribes to S. America and Mexico 9 species; to N. America 9; to Europe 63; to Siberia 9; to Caucasus 9; to Iberia 2; to Dahuria 2; to the Levant 2; to China 3; to Japan 1; to New Holland 2; to Arabia 3; to Sierra Leone 1; to Madeira 6; to the Canaries 14; to N. Africa 8; and to the Straits of Magellan 1. Adding 4 Köllerias, S. Africa exhibits 304 species, (*Harvey*); the E. Indies 27; viz. 1 of *Tillæa?*

(Kemaon, Mussooree,) 1 of *Umbilicus*, (Mussooree,) 7 of *Kalanchoe*, (Neelgherries, Nundydroog, Mysore, Bengal, Moluccas, Deyra-Dhoon, Taong-Dong.) 1 of *Bryophyllum*, (Moluccas,) and 17 of *Sedum*, (Himalayas.) Properties unimportant.

SEPTAS, L. (*DC. pr.* 3, *p.* 383.)

1. *capensis*, L. (*DC. l. c.*) ♃. C. G. H. Introduced in 1841.

KALANCHOË, Adans. (*DC. pr.* 2, *p.* 394;—*W. and A. pr.* 1, *p.* 359.)

1. *acutiflora*, Haw. (*DC. o. c. p.* 395.—Vereia acutiflora, *Andr.*;—*B. Repos.* 10, *t.* 610.) ♄ India. Fl. smallish, white, C. S.
2. *laciniata*, DC. (*pl. grass. t.* 100;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 81.—Cotyledon laciniata, *L.*—*Roxb. fl. ind.* 2, *p.* 456.—*Rumph.* 5, *t.* 95.) হিমসাগর *Himsagur*. ♄ Moluccas. Java. Mauritius. Bourbon. Hills about Dharwar. Pandooghur Fort, near Wye. Bengal, (Serampore, Patna.) Fl. smallish, bright-yellow, R. S.; fr. C. S.
3. *heterophylla*, W. and A. (*pr.* 1, *p.* 360.—Cotyledon heterophylla, *Roxb. fl. ind.* 2, *p.* 456.) ♄ Mysore. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)
4. *teretifolia*, Wall. (*pl. as. rar.* 2, *t.* 166.) ♄ Taong-Dong. Fl. smallish, yellow, C. S.; fr. H. S.
5. *varians*, Haw. (K. subamplectens, *Wall. pl. as. rar.* 2, *t.* 167.) Fl. smallish, yellow, C. S.; Deyra-Dhoon. Sirmore.

BRYOPHYLLUM, Salisb. (*DC. pr.* 3, *p.* 395;—*W. and A. pr.* 1, *p.* 360.)

1. *calycinum*, Salisb. (*DC. o. c. p.* 396;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 82;—*B. M.* 34, *t.* 1409;—*Wight. in Hook. bot. misc.* 3, *p.* 100, *suppl. t.* 31.—Kalanchoe pinnata, *Pers.*—Cotyledon pinnata, *Lam.*—C. calyculata, *Soland.*—C. calycina, *Roth.*—C. rhizophylla, *Roxb. fl. ind.* 2, *p.* 456.) ♄ Moluccas. Introduced into H. C. G. by Lady Clive, in 1799, and thence spread all over Bengal; about Serampore, it now forms a dense jungle. Fl. large, purplish-green, C. S.; fr. H. S.

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* *Tillæa muscosa*, L.; E. B. 2, t. 116. ⊙ Watery places of Europe.—*T. pedunculatis*, Sm. ⊙ Buenos Ayres.—*Bulliarda Vaillantii*, DC. ⊙ France.—*B. aquatica*, DC. ⊙ Denmark, Germany.—*Crassula capitellata*, L. fil. ⊙ C. G. H.—*Kalanchoe spathulata*, DC. ♄ China.—*K. crenata*, Haw. (Cotyledon crenata, Vent.; B. M. 35. t. 1436.) ♄ Sierra Leone.—*K. ceratophylla*, Haw. ♄ China.—*K. floribunda*, W. and A. ♄ Nundydroog.—*Pistorinia hispanica*, DC. ⊙ Spain. Barbary.—*Escheveria coccinea*, DC. (Cotyledon coccinea, Cav.; B. M. 52, t. 2572.) ♄ Mexico.—*E. gibbiflora*, DC. B. Reg. 15, t. 1247. ♄ Mexico.—*E. racemosa*, Hort. Clarem.; B. M. 64, t. 3570. ♄ Mexico?—*Sedum anglicum*, Huds.; E. B. 3, t. 171. ⊙ Europe.—*S. villosum*, L.; E. B. 6, *t.* 394. ⊙ Europe.—*S. rubens*, DC. ⊙ S. Europe.—*S. cæspitosum*, DC. ⊙ S. Europe.—*Sempervivum stellatum*, Sm. (S. villosum, Ait.; B. M. 43, t. 1809.) ⊙ Madeira.

ORDER CXIII.—AMYRIDACEÆ, Lindl. Nat. Syst. p. 165.

Fragrant resinous trees or shrubs, by Lindl. referred to 6 genera. Of these, according to DC. pr. and Spreng. syst., 36 species have been found in S. America, Mexico and the W. Indies; 1 in Florida; and 1 in Guinea. Only one species (Amyris alata, Spreng.) has been found in S. Africa, (*Harvey*); and 4 species of *Sabia* in Nepal and the Khassya Mountains.

"All the species of the genus Copaifera yield the *Balsam of Copaiva*; but it is not in all of them of equal quality. Myrospermum peruiferum, produces a fragrant resin in much use for burning as a perfume, and for medicinal purposes, called the *Balsam of Tolu*. Both it and the *Balsam of Peru* are also yielded, according to Ach. Richard, by M. toluiferum." (*Lindl.*)

Sabia, Colebr. (*Roxb. fl. ind. ed. Carey* 2, *p.* 308;—*G. Don's Mill. dict.* 2, *p.* 69.)

1. *lanceolata*, Colebr. (*Roxb. o. c. p.* 309;—*Trans. Linn. soc.* 12, *p.* 355, *t.* 14;—*G. Don's Mill. dict. l. c.*) L. ♄ ◡ Khassya Mountains. Fl. small, greenish, purple dotted, very fragrant, May.
2. *limoniacea*, Wall. (*Cat.*) ♄ ◡ Khassya Mountains. Introduced here in 1840.

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* *Amyris maritima*, Jacq. ♄ Jamaica. Cuba.—*A. sylvatica*, Jacq. ♄ S. America. St. Domingo. St. Thomas.—*A. brasiliensis*, Spreng. ♄ Brazil.—*A. Plumieri*, DC. ♄ W. Indies. Produces a sort of Gum-elemi.—*A. pinnata*, H. B. and Kth. ♄ Tropical S. America.—*A. bipinnata*, Moç. and Sessé. ♄ Mexico.—*Spathelia simplex*, L.; B. Reg. 8, t. 670. ♄ Jamaica.—*Tapiria guianensis*, Aubl. ♄ Guiana.—*Myrospermum frutescens*, Jacq. ♄ Bushy places at Carthagena and St. Martha.—*M. pubescens*, DC. ♄ Carthagena. Bark filled with resin, of a very grateful smell and taste.—*M. peruiferum*, DC. ♄ Peru. New Granada. Mexico.—*M. toluiferum*, A. Rich. ♄ S. America, on the banks of the river Magdalena.—*Copaifera Beyrichii*, Hayne. ♄ Brazil.—*C. guianensis*, Desf. ♄ Guiana.—*C. Martii*, Hayne. ♄ Brazil.—*C. Jacquiniana*, Hayne. ♄ Trinidad. Martinique.—*C. multijuga*, Hayne. ♄ Brazil. Produces Copaiva-balsam in the greatest abundance. (*Mart.*)

ORDER CXIV.—ANACARDIACEÆ.—Lindl. Nat. Syst. p. 166.

THE CASHEW TRIBE.

Trees or shrubs, rarely climbing, abounding in a resinous, sometimes highly poisonous juice and by Lindl. placed under 36 genera, excluding Lunanea, DC. which according to Hooker, is a species of Sterculia. Of

these, according to DC. pr. Spreng. Syst. and B. Reg., 46 species have been discovered in S. America, Mexico and the W. Indies; 9 in N. America; 5 in S. Europe; 3 in China and Japan; 3 in Mogador; 2 in Syria; 2 in N. Africa; 1 in the Canaries; 1 in Arabia; 1 in Mauritius; and 2 in the South Sea Islands. Exclusive of 6 species, belonging to other orders, S. Africa exhibits 44 species, (*Harvey.*) In the E. Indies our materials only mention 53 Anacardiaceæ; viz. 2 species of *Anacardium;* 7 of *Semecarpus;* 2 of *Holigarna;* 6 of *Mangifera;* 7 of *Buchanania;* 2 of *Melanorrhœa;* 2 of *Stagmaria;* 1 of *Gluta,* (Java,) 2 of *Syndesmis,* (Penang, Tavoy.) 1 of *Cambessedea,* W. and A. (Burma,) 1 of *Pistacia?* (Lour.) 1 of *Pegia* (Shevaggery Hills,) 1 of *Solenocarpus,* (Courtallum,) 1 of *Coniogeton,* (Java,) 13 of *Rhus,* (Nepal, Tavoy, Peninsula of India,) 1 of *Phlebochiton* (Khassya Mountains,) 1 of *Odina,* (all over India,) 1 of? *Triceros,* (Lour.) 1 of? *Rumphia,* L. (Malabar,) and 1 of? *Thysanus,* (Lour.) "Wallich's list is very imperfect as regards this order, including only about 25 species. Blume has 23 for Java, excluding Zanthoxylaceæ which he includes in the order." (*Wight.*) Properties under the several species.

A. Anacardieæ, R. Br.

(*DC. pr.* 2, *p.* 62.)

Anacardium, Rottb. (*DC. l. c.;—W. and A. pr.* 1, *p.* 168.)

1. *occidentale,* L. (*DC. l. c.;—W. and A. l. c.;—Roxb. fl. ind.* 2, *p.* 312;—*J. Grah. Cat. B. pl. p.* 40.—Acajuba occidentalis, *Gärtn. fr.* 1, *p.* 192, *t.* 40, *f.* 2.—Cassuvium pomiferum, *Lam.;—Rheed.* 3, *t.* 54.—*Rumph.* 1, *t.* 69.) হিজলি বাদাম *Hijili-badam.* ♄ W. Indies. Mexico. S. America. Moluccas. Malabar and Parell Hills. Bombay. Salsette. Penang. Tavoy. Chittagong. Fl. smallish, greenish-red, Feb. and March; fr. R. S. The *Cashew-tree* annually exudes from 5-12 pounds weight of a fine semitransparent *gum,* like gum-arabic, and not inferior to it in virtue or quality. From the body of the tree is procured by tapping or incision a *milky juice,* which will stain linen of a deep black that cannot be washed out again. The *receptacle* of the fruit has an agreeable, acidulous, subastringent flavour, and is eaten like an apple. The juice expressed from it and fermented, yields a pleasant wine, and distilled, affords a spirit, far exceeding arrack or rum. The *Cashew-nut* springs from one end of the receptable, and has two shells, between which there is a thick inflammable *oil.* This is very caustic, will raise blisters on the skin, and has often been very troublesome to those who have incautiously put the nuts into their mouths to break the shell. It has been used successfully in eating off ring-worms, cancerous, ulcers and corns, but it ought to be applied with caution. The *kernel,* when fresh, has a most delicious taste, and abounds with a sweet milky-juice. When older, it is usually roasted and then eaten as a moderately good substitute for almonds. (*G. Don.*)

SEMECARPUS, L. (*DC. pr.* 2, *p.* 62;—*W. and A.* 1, *p.* 168.)

1. *Anacardium*, L. (*DC. l. c.*;—γ. *W. and A. l. c.*;—*Roxb. fl. ind.* 2, *p.* 83;—*Corom.* 1, *t.* 12;—*J. Grah. Cat. B. pl. p.* 41.—Anacardium latifolium, *Lam. ill. t.* 208.—A. officinarum, *Gärtn. fr.* 1, *p.* 191, *t.* 40, *f.* 1.) ভেলা *Bhela*. L. ♄ Coromandel. Common throughout the Concans, and in Goozerat, (whence, according to Dr. Gibson, a considerable quantity of nuts is exported.) Berar. Silhet. Assam, extending to Deyra-Dhoon and Kyarda. Fl. small, green, May, June and July; fr. Jan. and Feb. The *wood* of the *Marking-nut Tree* is of no use, partly on account of its softness, and partly because its abundance of acrid juice renders it dangerous to work. *Bark* mildly astringent, giving out in decoction a deep colour, which dyes brown of various shades. Wounded, it yields a dirty looking, brownish, soft gum, slowly dissolving in the mouth without much taste. The *receptacle* of the fruit roasted in ashes, is eaten by the natives, and tastes like roasted apples, whereas raw, it is astringent and acrid, leaving a painful sensation for some time on the tongue. The *green nuts*, well-pounded into a paste, make good bird-lime. The pure black, *acrid juice* of the nuts is employed by the natives to remove rheumatic pains, aches and sprains, though in tender constitutions it often produces inflammation, doing much more harm than good; but in general the rubbing on of the oil has not this effect, and is then an efficacious remedy. It is generally employed to mark all sorts of cotton-cloth. By a mixture of quick lime and water, the colour is improved, prevented from running, and fixed. (*Roxb.*)
2. *Cassuvium*, Roxb. (*fl. ind.* 2. *p.* 85.—Cassuvium silvestre, *Rumph.* 1, *t.* 70.) ♄ Moluccas. Fl. small, greenish-yellow. In H. C. G. fl. H. S.; fr. R. S. (*Roxb.*) *Tender leaves* eaten at Amboina. The acrid juice of the stem employed to varnish shields, canes, &c. (*Rumph.*)
3. *cuneifolius*, Roxb. (*fl. ind.* 2, *p.* 86;—*J. Grah. Cat. B. pl. p.* 41.) L. ♄ Lanowlee Grove, Kandalla. Jungles about Parr. Hindoosthan. Nepal. Introduced into H. C. G. in 1808, but had not fl. up to 1814.
4. *acuminatus*, Wall. (*Cat.*) ♄ Chittagong. Introduced here five years ago, but has not fl.
5. *odoratus*, Wall. Royal garden at Ceylon.
6. *humilis*, Wall. Prome.

HOLIGARNA, Roxb. (*DC. pr.* 2, *p.* 63;—*W. and A. pr.* 1, *p.* 169.)

1. *longifolia*, Roxb. (*Corom.* 3, *t.* 282;—*fl. ind.* 2, *p.* 80;—*DC. l. c.*;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 41.—*Rheed.* 4, *t.* 9.) L. ♄ Travancore. Malabar. Hilly wooded parts of the Concan. Chittagong. Assam. Fl. small, whitish, January; fr. May and June. *Juice* of the wood, very acrid, employed in Malabar for varnishing shields. (*Buch.*)
2. *racemosa*, Roxb. (*fl. ind.* 2, *p.* 82;—*W. and A. pr.* 1, *p.* 169, *annot.*) L. ♄ Chittagong. Silhet. Assam. Fl. small, green, Feb. and March; fr. June and July. *Juice* of the wood acrid.

MANGIFERA, L. (*DC. pr.* 2, *p.* 63;—*W. and A. pr.* 1, *p.* 169.)

1. *indica*, L. (*DC. l. c.*;—*W. and A. o. c. p.* 170;—*Roxb. fl. ind.* 1, *p.* 641; *ed. Carey.* 2, *p.* 435;—*J. Grah. Cat. B. pl. p.* 41.—M. montana, *Heyne.*—M. domestica, *Gärtn. fr.* 2, *p.* 95, *t.* 100.—*Rheed.* 4, *t.* 1, 2.—*Rumph.* 1, *t.* 25.) আম *Am.* L. ♄ All over India, thriving northwards up to Nahn, alt. 4000 f., but its fruit does not ripen there. Fl. small, greenish-yellowish, Feb. and March; fr. May, June and July. *Wood* dull grey, porous, pretty durable if kept dry, but soon decaying by exposure to wet. In very large old trees, it acquires a light chocolate colour towards the centre of the trunk and larger branches, and is there hard, closer grained, and much more durable. From wounds in the bark issues a soft, reddish-brown *gum-resin*, hardening by age, and then much resembling Bdellium. *Fruit* too well known to require more than to be mentioned. *Kernels* large, seemingly containing much nourishment, but only used during times of scarcity and famine, when they are boiled in the steam of water and eaten. (*Roxb.*)
2. *sylvatica*, Roxb. (*fl. ind.* 1, *p.* 644;—*ed. Carey.* 2, *p.* 438;—*J. Grah. B. pl. p.* 41.) L ♄ Khassya Mountains. Assam. Near Kennery Caves. Bombay. Fl. small, white, tinged with rose, Sept. and Oct.; fr. Feb. and March. (*Roxb.*) *Fruit* eaten by the natives, where the tree grows, though by no means so palatable as even a bad domestic mango; also dried and kept for medicinal purposes. (*Roxb.*)
3. *Gandaria*, Roxb. (*H. B. p.* 18.) Moluccas. Introduced into H. C. G. in 1803, but had not fl. up to 1814.

CAMBESSEDEA, W. and A. (*pr.* 1, *p.* 170, *annot.*;—not Kth.)

1. *oppositifolia*, W. and A. (Mangifera oppositifolia, *Roxb. fl. ind.* 1, *p.* 640;—*ed. Carey.* 2, *p.* 434;—*J. Grah. Cat. B. pl. p.* 41.) ♄ Rangoon. Fl. small, greenish sulphur, Feb. and March; fr. June and July. *Wood* reddish, hard, close-grained, and said to be durable. *Fruit* universally eaten in Burma. (*Roxb.*)

BUCHANANIA, Roxb. (*DC. pr.* 2, *p.* 63;—*W. and A. pr.* 1, *p.* 169.)

1. *latifolia*, Roxb. (*fl. ind.* 2, *p.* 385;—*DC. o. c. p.* 64;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 41.—Spondias elliptica, *Röttl.*) L. ♄ Mountains of Coromandel. Common in the Barria jungles, east of Baroda. Jungles near Belgaum. Salsette. Moulmein. Hurdwar. Oude. Valleys of Deyra and Kyarda. Fl. small, greenish-white, Feb. and March; fr. R. S. *Wood* used for various purposes. *Kernels* a general substitute for almonds amongst the natives, and sold in the bazars. (*Roxb.*)
2. *angustifolia*, Roxb. (*fl. ind.* 2, *p.* 386;—*Corom.* 3, *t.* 262;—*DC. pr.* 2, *p.* 64;—*W. and A. pr.* 1; *p.* 169;—*Wight. icon.* 1, *t.* 101;—*J. Grah. Cat. B. pl. p.* 41.—Spondias simplicifolia, *Röttl.*—Mangifera axillaris, *Lam.*—Cambessedea, *Kth.*) ♄ Mountains of Coromandel. Adjunta jungles. Fl. small, greenish, May and June; fr. Feb. and March.

3. *lanceæfolia*, Roxb. (*H. B. p.* 32.—B. lancifolia, *Roxb. fl. ind.* 2, *p.* 386;—not B. lanceolata, Wight.) L. ♄ Chittagong. Introduced into H. C. G. in 1810, but had not fl. up to 1814. *Fruit* eaten by the natives. (*Roxb.*)

MELANORRHŒA, Wall, (*pl. as. rar.* 1, *p.* 9;—*G. Don's Mill. dict.* 2, *p.* 67.)

1. *usitatissima*, Wall. (*o. c. t.* 11, 12;—*G. Don. l. c.*) L. ♄ *Varnishing-tree of the Burmese.* Prome. Martaban. Moulmein. Tavoy. Has been in the garden here for five years, but has not flowered yet. This is identical with the majestic *Khèn* or varnish-tree of Munipur, which perhaps does not differ from the varnish-tree of the Chinese. The varnish is procurable in great quantities from Munipur, where it is used for painting river-craft, and for varnishing vessels destined to contain liquid. The drug is conveyed to Silhet by the merchants. On being handled it occasions extensive crysipelatous swellings, attended with pain and fever, but never of long duration. In the neighbourhood of Prome, a considerable quantity of varnish is extracted from the tree, but very little at Martaban. Short joints of a thin sort of bamboo, sharpened at one end, and shut up at the other, are inserted in a slanting direction into holes made in the trunk and principal branches, and left there for 24 or 48 hours; after which they are removed, and their contents emptied into a basket previously varnished over. Sometimes a hundred bamboos may be seen sticking into the tree at once during the collecting season, which lasts as long as the tree is destitute of leaves, namely from January until April, and they are renewed as long as the juice will flow. Every article of household destined to contain liquid food is lacquered over with this juice in its pure state or variously coloured, after having previously been prepared with calcined bones. The process of drying is the most difficult part, being effected in a very slow and gradual manner by the varnished articles being placed in subterranean vaults for several months. The drug is also used as size-glue in the process of gilding; nothing more being required than to besmear the surface of the article to be gilded with it, and immediately to apply the gold leaf. The beautiful Pali writing of the religious order of the Burmese on ivory, palm leaves, or metal, is entirely done with this varnish in its native and pure state. (*Wall.*)

PISTACIA, L. (*DC. pr.* 2, *p.* 64.)

1. *vera*, L. (*DC. l. c.*) ♄ Syria, from whence it was introduced into Italy by the emperor Vitellius, when he was legate in that province. It is now found throughout the whole region of the Mediterranean. Fl. small, brownish green. Has been introduced into H. C. G. Fl. ? Produces the *Pistachia or Pistach nuts.*

2. *Terebinthus*, L. (*DC. pr.* 2, *p.* 64.) *Venetian or Chian Turpentine-tree.* ♄ S. Europe. N. Africa. The resin of this tree is the Chian or

Cyprus-turpentine, generally preferred for medical use to what is obtained from the fir-tribe. Has been introduced into H. C. G. Fl.?

3. *Lentiscus*, L. (*DC. pr.* 2, *p.* 65;—*B. M.* 45, *t.* 1967.) কুন্দু রুমী *Koondoo-roomee.* রুমী মস্তকি *Roomee-mastuki. Mastick-tree.* ♄ S. Europe. N. Africa. Fl. small, green. Produces the resin, usually called *Gum Mastick.* Has been introduced into H. C. G. Fl.?

The first of these three species, under the name of P. officinarum, was introduced into H. C. G. in 1806, but had not fl. up to 1814.

B. Rhoieæ.

Sumachineæ, (*DC. pr.* 2, *p.* 66.)

Rhus, L. (*DC. l. c.*;—*W. and A. pr.* 1, *p.* 172.)

1. *glabra*, L. (*DC. pr.* 2, *p.* 67.) ♄ N. America, from New England to Carolina, common in fields. Introduced into H. C. G. before 1814. Fl.?
2. *succedanea*, L. (*DC. pr.* 2, *p.* 68;—*Roxb. fl. ind.* 2, *p.* 98.) ♄ Japan. Kemaon. Nepal. Fl. small, yellow, Dec. Jan. Feb. and March; fr. March. (*Roxb.*)
3. *vernicifera*, DC. (*pr.* 2, *p.* 68.—R. vernix, *L. mat. med.* 151;—*Thunb. jap. p.* 121; not of others. R. juglandifolia, *Wall.*;—*D. Don. pr. fl. nep. p.* 248;—not Willd.) ♄ Japan. Kemaon. Nepal. Gurhwal. In H. C. G. Fl.? This is the *Japan varnish-tree*, which is said to be equally poisonous with the next species.
4. *venenata*, DC. (*pr.* 2, *p.* 68.—R. Vernix, *L. sp. p.* 380.—Toxicodendron pinnatum, *Mill. dict. No.* 5.) ♄ N. America, from Canada to Carolina in low copses, where it is called *Poison Sumach* or *Poison Wood.* Introduced into H. C. G. in 1801, but had not fl. up to 1814. The whole tree is in a high degree poisonous, and the poison is communicated by touching or smelling any part of it. (*Mill. dict.*)
5. *Bucki-amela*, Roxb. (*fl. ind.* 2, *p.* 99.—R. Amela, *G. Don. pr. fl. nep. p.* 248.—R. semialata, β. Roxburghii, *DC. pr.* 2, *p.* 67.) ♄ Kemaon. Shreenagur. Fl. small, greenish-yellow, Aug. and Sept.; fr. C. S.
6. *copallina*, L. (*DC. pr.* 2, *p.* 68;—*Jacq. hort. schönb. t.* 341.) ♄ N. America, in dry fields and woods, particularly in a sandy soil, from New Jersey to Carolina. Introduced into H. C. G. before 1814. Fl.?
7. *radicans*, L. (*DC. pr.* 2, *p.* 69;—β. *vulgaris, B. M.* 43, *t.* 1806.—Toxicodendron vulgare and volubile, *Mill. dict.*) ♄ N. America, from Canada to Georgia, common in all woods, fields, and along fences. Introduced into H. C. G. in 1807, but had not fl. up to 1814. Like the preceding species it is poisonous to some persons, but in a less degree.
8. *Toxicodendron*, L. (*DC. pr.* 2, *p.* 69.—Toxicodendron pubescens, *Mill. dict.*) ♄ N. America, creeping upon walls or trees. Introduced into H. C. G. before 1814. Fl.?

9. *lucida*, L. (*DC. pr.* 2, *p.* 69;—*Roxb. H. B. p.* 22;—*J. Grah. Cat. B. pl. p.* 42.) ♄ C. G. H. Has not fl. here, though cultivated for many years.

10. *paniculata*, Wall. (*Cat.*—*G. Don's. Mill. dict.* 2, *p.* 73.) ♄ Burma. Fl. small, pale-green, Nov.; fr. H. S.

11. *lævigata*, L. (*DC. pr.* 2, *p.* 70.—R. elongata, *Jacq. hort. schönbr. t.* 344.) ♄ C. G. H. Introduced into H. C. G. in 1799, but had not fl. up to 1814.

12. *parviflora*, Roxb. (*fl. ind.* 2, *p.* 100;—*DC. pr.* 2, *p.* 70;—*J. Grah. Cat. B. pl. p.* 42.) ♄ Nepal. Kemaon. Fl. minute, greenish-yellowish, May, June and July; fr. 0.

13. *zanzibariensis*, Bojer. ♄ Zanzibar. Introduced in 1840.

14. *caustica*, Hook. (*Bot. Beech. p.* 15, *t.* 7;—*G. Don's Mill. dict.* 2, *p.* 75.) ♄ Chili. Has been introduced into H. C. G. Fl. ?

PHLEBOCHITON, Wall. (*Transact. of med. phys. soc. Calcutta, 7th vol. 2d part, p.* 230.)

1. *extensus*, Wall. (*l. c. p.* 231.—Robergia hirsuta, *Roxb. fl. ind.* 2, *p.* 455 ?) L. ♄ ◡ Khassya Mountains. Fl. small, white, Feb.; fr. April. *Bark* and *tender parts* aromatic.

ODINA, Roxb. (*W. and A. pr.* 1, *p.* 171.)

1. *Wodier*, Roxb. (*fl. ind.* 2, *p.* 293;—*W. and A. l. c.*;—*Royle. ill. t.* 31, *f.* 2;—*Wight. icon.* 1, *t.* 60;—*J. Grah. Cat. B. pl. p.* 42.) জিওল *Jiol.* L. ♄ Coromandel Mountains. Malabar Hill, Bombay. Elephanta. Pretty common on the Ghauts. Bengal, (Serampore.) Hindoosthan, northwards to the valleys of Deyra and Kyarda. Fl. small, greenish yellowish, externally purplish, Feb. and March; fr. Sept. and Oct. *Wood* of old trees close-grained, of a deep reddish mahogany colour towards the centre. This coloured part is serviceable for many purposes, and looks well. From wounds in the bark issues a gum which, when dry, is like pieces of dry-glue. (*Roxb.*)

? SCHINUS, L.

1. *terebinthifolius*, Raddi. (*DC.* 2, *p.* 74.) ♄ Brazil.

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* *Anacardium Rhinocarpus*, DC. L. ♄ St. Martha, Tobago, New Granada.—*Semecarpus Grahamii*, Wight. icon. 1, t. 235. L. ♄ The Ghauts.—*Mangifera fœtida*, Lour. Rumph. 1, t. 28. L. ♄ Cochin China. Moluccas. Sumatra. Penang.—*M. glauca*, Bl. ♄ Moluccas.—*M. laxiflora*, Desv. ♄ Mauritius.—*M. quadrifida*, Jack. ♄ Sumatra.—*M. cæsia*, Jack. ♄ Sumatra.—*Buchanania intermedia*, Wight. icon. 1, t. 81. ♄ Naggaree Hills, near Madras.—*B. lonchophylla*, (B. lanceolata, Wight. icon. 1, t. 237, not lanceæfolia, Roxb.)—*Melanorrhœa glabra*, Wall. pl. as. rar. 3, t. 283. ♄ Tavoy.—*Stagmaria verniciflua*, Jack. L. ♄ Sumatra. Borneo.—*Gluta Banghas*, L. ♄ Java.—*Syndesmis elegans*, Wall. ♄ Penang.—*Pistacia mexicana*, H. B. and Kth. ♄ Mexico.—*Astronium graveolens*, Jacq. ♄ Carthagena. St. Martha.—*Comocladia*

ilicifolia, Swz. 5 W. Indies.—*C. acuminata*, Moç. and Sessé. 5 Mexico.—*C. dentata*, Jacq. ♄ Cuba. St. Domingo.—*C. mollissima*, H. B. and Kth. 5 Mexico.—*C. integrifolia*, Jacq. 5 Jamaica.—*Cyrtocarpa procera*, H. B. and Kth. ♄ New Spain.—*Picramnia Antidesma*, Swz. 5 Jamaica.—*P. Tessonia*, DC. 5 Mexico.—*P. Tariri*, DC. 5 Guiana.—*Pegia Colebrookiana*, Wight icon. 1, t. 236. ♄ Shevaggery hills.—*Solenocarpus indicus*, W. and A. Courtallum.—*Coniogeton arborescens*, Bl. 5 Java.—*Rhus juglandifolia*, Willd. ♄ New Granada.—*R. Cavanillesii*, DC. ♄ Mexico.—*R. decipiens*, W. and A. Burm. zeyl. t. 45; Wight. ill. 1, t. 75. Ceylon. Peninsula of India.—*R. mysorensis*, Heyne. Mysore.—*Mauria simplicifolia*, H. B. and Kth. 5 S. America.—*Duvaua ovata*, Lindl.; B. Reg. 19, t. 1568. ♄ Chili.—*D. dependens*, DC.; B. Reg. 19, t. 1573. ♄ Chili.—*D. latifolia*, Gillies; B. Reg. 19, t. 1580. ♄ Chili.—*Schinus Molle*, L.; B. M. 61, t. 3339. 5 Brazil.

ORDER CXV.—QUERCACEÆ, (Corylaceæ, Mirb.—Lindl. Nat. Syst. p. 170.)

THE NUT TRIBE.

Trees or shrubs, containing among them the Oak, the Hazel Nut, the Beech, the Hornbeam and the Spanish Chestnut, and by Lindl. referred to 8 genera. Of these, Spreng. syst. enumerates 37 species from N. America; 34 from S. America and Mexico; 21 from Europe; 6 from Japan; 3 from the Levant; 2 from Caucasus and Tauria; 2 from China; 1 from N. Africa, with several others common to Europe and the Orient; and 1 from Terra del Fuego. In the E. Indies, according to our materials, have been discovered 60 species, viz. 2 of *Carpinus;* 2 of *Corylus;* 9 of *Castanea;* 46 of *Quercus;* and 1 of *Lithocarpus;*—most of them from Nepal, Kemaon, the Khassya Mountains, Rungpore, Chittagong, Assam, Darjeeling, Amherst, Penang, Singapore, and Taong-Dong. With Blume's plants of this order we are not acquainted.

Castanea, Tournef. (*Spreng. syst.* 3, *p.* 761, *No.* 3123;—*Endl. gen. pl.* 1, *p.* 275.) *Chestnut.*

1. *indica*, Roxb. (*fl. ind.* 3, *p.* 643;—*Wall. pl. as. rar.* 2, *p.* 105;—*Wight. icon.* 2, *t.* 417.) 5 Chittagong. Khassya and Nepal Mountains. In H. C. G. fl. Dec.; fr. Sept. *Kernels* eaten by Europeans and Natives, and may be compared to indifferent filberts. (*Roxb.*)
2. *vesca*, Gärtn. (*fr.* 1, *p.* 181, *t.* 352;—*Spreng. syst.* 3, *p.* 856.—Fagus Castanea, *L.*; *E. B.* 13, *t.* 886;—*Roxb. H. B. p.* 68.) *Common Chestnut Tree.* S. Europe. N. America. Introduced into H. C. G. in 1799, but had not fl. up to 1814.

3. *chinensis*, Spreng. (*syst.* 3, *p.* 856.—C. pumila, *Roxb. fl. ind.* 3, *p.* 644.—Fagus Castanea, *Lour.*; not L.) ♄ China. Cochin China. Introduced into H. C. G. in 1807, but had not fl. up to 1814.
4. *Roxburghii*, Lindl. (*Wall. pl. as. rar.* 2, *p.* 106.—Quercus castanicarpa, *Roxb. fl. ind.* 3, *p.* 640.) L. ♄ In H. C. G. fl. July and Aug.; fr. Nov. and Dec. (*Roxb.*)
5. *tribuloïdes*, Lindl. (Quercus tribuloïdes, *Sm.*—Q. ferox, *Roxb. fl. ind.* 3, *p.* 639;—*Wight. icon.* 1, *t.* 218.) L. ♄ Khassya and Nepal Mountains. Has been introduced into H. C. G. Fl. ?

QUERCUS, L. (*Spreng. syst.* 3, *p.* 761, *No.* 3124;—*Endl. gen. pl. p.* 274.) *Oak.*

1. *Phellos*, L. (*Spreng. o. c. p.* 857;—*Catesb. car.* 1, *p.* 16, *t.* 16;—*Roxb. H. B. p.* 68.) ♄ N. America. Introduced into H. C. G. in 1800, but had not fl. up to 1814.
2. *fenestrata*, Roxb. (*fl. ind.* 3, *p.* 633;—*Wight. icon.* 1, *t.* 219.) L. ♄ Khassya Mountains. In H. C. G. fl. April and May; fr. Sept. and Oct. (*Roxb.*) *Wood* of good quality.
3. *lanceæfolia*, Roxb. (*fl. ind.* 3, *p.* 634;—*Wight. icon.* 1, *t.* 212.) L. ♄ Garrow-hills. Assam. In H. C. G. fl, Dec.; fr. Oct. (*Roxb.*) *Wood* light coloured, like the English oak, but harder, and reckoned one of the most durable timbers where it grows. (*Roxb.*)
4. *lappacea*, Roxb. (*fl. ind.* 3, *p.* 637;—*Wight. icon.* 1, *t.* 220.) Khassya Mountains. L. ♄. In H. C. G. fl. Dec. and January; fr. Aug. and Sept. (*Roxb.*) *Wood* strong, in colour like that of the common oak, but harder and more close-grained. (*Roxb.*)
5. *turbinata*, Roxb. (*fl. ind.* 3, *p.* 636;—*Wight. icon.* 1, *t.* 221, *f.* 1.) L. ♄ Chittagong. In H. C. G. fl. April and May; fr. Sept. and Oct. (*Roxb.*) *Wood* only used for fuel. (*Roxb.*)
6. *spicata*, Buch. (*in Rees. cyclop.*;—*Wall. pl. as. rar.* 1, *t.* 46;—not Humb.—Q. squamata, *Roxb. fl. ind.* 3, *p.* 638;—*Wight. icon.* 1, *t.* 213.) L. ♄ Garrow-hills. Khassya Mountains. Nepal. Chittagong. In H. C. G. fl. Feb.; fr. Oct. (*Roxb.*) *Wood* lighter-coloured than English oak, but equally close-grained, and apparently as strong. (*Roxb.*)
7. *semiserrata*, Roxb. (*fl. ind.* 3, *p.* 641;—*Wight. icon.* 1, *t.* 211.) L. ♄ Garrow-hills, Khassya Mountains. In H. C. G. fl. Jan., Feb. and March; fr. Aug. and Sept. (*Roxb.*)
8. *prinodes*, (Q. serrata, *Roxb. fl. ind.* 3, *p.* 641;—not Thunb. fl. jap. p. 176.) L. ♄ Garrow-hills. In H. C. G. fl. Sept. and Oct. Timber useful. (*Roxb.*)
9. *pedunculata*, Willd. (*Spreng. syst.* 3, *p.* 864.—Q. Robur, *L.*;—*E. B.* 19, *t.* 1342;—*Roxb. H. B. p.* 68.) *Common British Oak.* L. ♄ Europe. Introduced into H. C. G. in 1798, but had not fl. up to 1814.

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* *Castanea martabanica*, Wall. pl. as. rar. 2, t. 107. ♄ Amherst.—*C. sphærocarpa*, Lindl. (Quercus armata, Roxb.) L. ♄ Khassya Mountains.

Assam.—*Quercus velutina*, Wall. pl. as. rar. 2, t. 150, ♄ Tavoy.—*Q. lucida*, Roxb. ♄ Penang.—*Q. muricata*, Roxb. L. ♄ Penang.—*Q. acuminata*, Roxb. L. ♄ Chittagong.—*Q. glomerata*, Roxb. L. ♄ Penang.—*Q. hirsuta*, Lindl. ♄ Silhet.—*Q. magnoliæfolia*, Née. Mexico. *Q. lanceolata*, Humb. Mexico.—*Q. mexicana*, Humb. Mexico.—*Q. salicifolia*, Née. Mexico.—*Q. elliptica*, Née. Mexico.—*Q. ambigua*, Humb. Mexico.—*Q. stipularis*, Humb. Mexico.—*Q. xalapensis*, Humb. Mexico.—*Lithocarpus javensis*, Bl. Java.—*Synædrys ossea*, Lindl. China.

ORDER CXVI.—BETULACEÆ.—Lindl. Nat. Syst. p. 171.

THE BIRCH TRIBE.

Fine timber trees, or shrubs, referred to 2 genera. Of these, Spreng. syst. assigns 12 species to N. America; 8 to Europe; 2 to Siberia; 2 to S. America and Mexico; and 1 to Terra del Fuego. In the E. Indies have been discovered 11 forms, viz. 8 of *Betula*; and 3 of *Alnus*; all natives of Nepal. 1 (or perhaps 2) species of Alnus has been found in S. Africa. (*Harvey.*)

"Their bark is astringent, and sometimes employed as a febrifuge; but they are chiefly valued for their importance as ornaments of a landscape. Their wood is often light, and of inferior quality, but that of the Black Birch of N. America is one of the hardest we know." (*Lindl.*)

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* *Betula nitida*, Don. Nepal.—*B. alnoïdes*, Buch. Nepal.—*B. utilis*, Don. Nepal.—*B. accuminata*, Wall. Silhet.—*Alnus jorullensis*, Kth. Mexico.—*A. ferruginea*, Kth. New Granada.

ORDER CXVII.—SCEPACEÆ,—Lindl. Nat. Syst. 1. p. 171.

Trees, of the following 3 genera containing 4 species. Properties nearly unknown.

LEPIDOSTACHYS, Wall. (*Cat.—Lindl. Nat. Syst. p.* 441. *No.* 21;—*Endl. gen. pl.* 1, *p.* 288.)

1. *Roxburghii*, Wall. (*Cat.—Lindl. l. c.*—Alnus dioica, *Roxb. fl. ind.* 3, *p.* 580.) L. ♄ Khassya Mountains. In H. C. G. fl. March and April; fr. Sept. and Oct. (*Roxb.*) *Timber* hard, and used for various economical purposes. (*Roxb.*)

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* *Scepa villosa*, Lindl. Moulmein. Banks of the Saluen.—*S. stipulacea*, Lindl. Burma.—*Hymenocardia punctata*, Wall. Cat. Moulmein.

ORDER CXVIII.—HENSLOVIACEÆ,—Lindl. Nat. Syst. p. 173.

Two trees, natives of tropical India, of unknown properties form this family.

* *Henslovia pubescens*, Wall. pl. as. rar. 3, t. 221. Penang.—*H. glabra*, Wall. Cat. Silhet.

ORDER CXIX.—TREWIACEÆ, Lindl. Nat. Syst. p. 174.

Consists of a couple of trees, natives of tropical India.

TREWIA, L. (*Spreng. syst.* 3, *p.* 895, *No.* 3195.)

1. *nudiflora*, Spreng. (*syst.* 3, *p.* 906;—*Roxb. fl. ind.* 3, *p.* 837;—*J. Grah. Cat. B. pl. p.* 185.—Tetragastris ossea, *Gärtn. fr.* 2, *p.* 130, *t.* 109, *f.* 5.—Rottlera indica, *Willd. Gott. diar. hist. nat.* 1, *p.* 8, *t.* 3. —*Rheed.* 1, *t.* 42.) পিটুলী *Pitulee.* L. ♄ Coromandel. Parell Hill, Bombay. Common in the jungle between Nagotnah and the Pass leading to Judapore. Bengal, (Serampore.) Fl. small; whitish-greenish, H. S.; fr. R. S. *Wood* soft and of little value.
2. *atroviridis*, Wall. ♄ Penang.

ORDER CXX.—URTICACEÆ, Endl.—Lindl. Nat. Syst. p. 175.

THE NETTLE TRIBE.

Trees, shrubs or herbs, often lactescent, by Gaudichaud referred (adding Lepurandra, Nimmo.) to 66 genera. Of these, Spreng. syst enumerates 142 species from S. America, Mexico and the W. Indies; 20 from New Holland and the South Sea Islands; 18 from N. America; 18 from Mauritius and Bourbon; 12 from Arabia; 13 from Europe; 5 from China; 5 from Japan; 5 from Guinea; 4 from the Canaries; 3 from N. Africa; 3 from the Straits of Magellan; 2 from the Levant; 1 from Persia; 1 from Siberia; 1 from Madagascar; and 1 from Patagonia. Adding 1 Laurophyllus, 21 species have been discovered in S. Africa, (*Harvey,*) and in the E. Indies, according to Spreng. syst, Roxb. fl. ind, Wall. Cat. and Royl. ill. 298, viz. of *Urtica* 59; *Böhmeria* 11; *Procris* 21; *Parietaria* 1; *Cannabis* 1; *Antiaris* 1; *Conocephalus* 2; *Morus* 13; *Broussonetia* 1; *Ficus* 167; *Lepurandra* 1; *Dorstenia*? 1; *Artocarpus* 14; *Batis* 2; *Epicarpurus* 1; and *Trophis* 2. Properties under the different species.

A. URTEREÆ, Gaudich.

(*Lindl. Nat. Syst. p.* 177.)

URTICA, L. (*Spreng. syst.* 3, *p.* 760. *No.* 3099;—*Endl. gen. pl.* 1, *p.* 283.) *Nettle.*

1. *smilacifolia*, Wall. MSS. ♄ Native place? Fl. minute, greenish, C. S.

2. *scabrella*, Roxb. (*fl. ind.* 3, *p.* 581;—*Spreng. syst.* 3, *p.* 837.) ♄ Chittagong. Silhet. Assam. Fl. small, greenish, Aug. and Sept.; fr. Nov. and Dec. Harsh to the touch, but does not sting. (*Roxb.*)
3. *macrostachya*, Wall. (*Cat.*) ♄ Nepal. Fl. small, greenish, C. S.; fr. H. S.
4. *penduliflora*, Wall. (*Cat.*) ♄ Nepal. Fl. small, pale-greenish, C. S.; fr. H. S.
5. *viminea*, Wall. (*Cat.*) ♄ Assam. Nepal. Fl. small, greenish, C. S.; fr. H. S.
6. *blanda*, Wall. MSS. ♄ Native place? Fl. small, greenish, C. S.; fr. H. S.
7. *parviflora*, Roxb. (*fl. ind.* 3, *p.* 581.) ♃. Rohilkund. Fl. minute, green, H. S.
8. *tuberosa*, Roxb. (*fl. ind.* 3, *p.* 583.—*Rumph.* 6, *t.* 12, *f.* 2.) চন্দর মূলী *Chundur-moolee*. ♃. Moluccas. Bengal, (Serampore.) Fl. very small, greenish, R. S.; fr. C. S. *Roots* nutritious, eaten by the natives raw, boiled, or roasted. (*Roxb.*)
9. *dioeca*, L. (*Spreng. syst.* 3, *p.* 839;—*E. B.* 25, *t.* 1750;—*Roxb. H. B. p.* 67.) ♃. Europe. Asia. N. America. Fl. small, green, C. S.; fr. H. S.
10. *urens*, L. (*Spreng. syst.* 3, *p.* 840;—*E. B.* 18, *t.* 1236;—*Roxb. H. B. p.* 67.) ☉ Europe. Asia. N. America. Fl. small, whitish, C. S.; fr. H. S.
11. *pilulifera*, L. (*Spreng. syst.* 3, *p*, 840;—*E. B.* 3, *t.* 148.) ☉ England. S. Europe. Middle Asia. Fl. small, whitish, C. S.; fr. H. S.
12. *suffruticosa*, Roxb. (*fl. ind.* 3, *p.* 584.) ♄ Sumatra. Fl. small, greenish-yellow, R. S.; fr. C. S.
13. *decumana*, Rumph. (*Amb.* 6, *t.* 20, *f.* 1;—*Roxb. fl. ind.* 3, *p.* 587.) ♄ Moluccas. Fl. small, greenish, R. and C. S. (*Roxb.*)
14. *pulcherrima*, Roxb. (*fl. ind.* 3, *p.* 588.) ♄ Chittagong. Silhet. Goalpara. Fl. small, greenish, R. S.; fr. C. S.
15. *bicolor*, Roxb. (*fl. ind.* 3, *p.* 589.) ♄ Mountains of Bareilly. In H. C. G. fl. R. S. (*Roxb.*)
16. *nivea*, L. (*Spreng. syst.* 3, *p.* 843.—U. tenacissima, *Roxb. fl. ind.* 3, *p.* 590.—*Rumph.* 5, *t.* 79, *f.* 1.) ♄ Sumatra. Moluccas. China. Cochin China. Japan. Mauritius. Silhet. Assam. Fl. small, greenish-yellow, Oct. and Nov. *Bark* abounding in fibres of very great strength and fineness. (*Roxb.*) To procure them the young shoots are cut down, dried and beaten, after which the rind is stripped off. (*Marsden.*)
17. *crenulata*, Roxb. (*fl. ind.* 3, *p.* 591; not Pers.) ♄ Khassya Mountains. Fl. small, greenish, latter part of R. S. This plant stings dreadfully. Leschenault de la Tour (*Mem. Mus.* 6, *p.* 362,) happened slightly to touch with his fingers one of its leaves in H. C. G. The consequence was intolerable pain, without any swelling, extending to the armpit, and subsequently producing frequent sneezing, copious

running from the nose, and a contraction of the jaws. The pain abated somewhat after the lapse of two days, but returned in full force when the hand was put into water, and at last disappeared on the ninth day. A similar circumstance occurred, with precisely the same symptoms, to a workman in the Calcutta Garden. This man described the sensation, when water was applied to the stung part, as if boiling oil was poured over him. (*Lindl.*)

18. *involucrata*, Roxb. (*H. B. p.* 67;—*fl. ind.* 3, *p.* 592; not Sims, B. M. vol. 51, t. 2481.) ♄ Malay Islands. In H. C. G. fl. R. S. (*Roxb.*)

19. *heterophylla*, Roxb. (*fl. ind.* 3, *p.* 586;—*J. Grah. Cat. B. pl. p.* 187; not Vahl., which, excluding syn. Rheed., is the same with U. palmata, Forsk.—*Rheed.* 2, *t.* 41.) ⊙ Concans. Coromandel. Prome. Taong-Dong. Nepal. Fl. small, green, R. S.; fr. C. S. A very ferocious-looking plant, the least touch of which produces a most acute, though quickly subsiding pain. *Bark* abounding in fine, white, glossy, silk-like, strong fibres. (*Roxb.*)

20. *photeinophylla*, Cunnigh. ♄ Morton Bay, 1839.

B. Böhmeriæ, Gaudich.

(*Lindl. Nat. Syst. p.* 177.)

Böhmeria, Jacq. (*Spreng. syst.* 3, *p.* 760, *No.* 3100.)

1. *salicifolia*, D. Don. (*Spreng. syst.* 3, *p.* 845.—Urtica salicifolia, *Roxb. H. B. p.* 67.) ♄ Moluccas. Foot of the Himalayas, as far as Deyra-Dhoon. Introduced into H. C. G. in 1798, but had not fl. up to 1814. Its aggregated small berries yield an edible fruit. (*Royle.*)

2. *interrupta*, Willd. (excl. syn. Burm.—*Spreng. syst.* 3, *p.* 846.—Urtica interrupta, *L.*;—*Roxb. fl. ind.* 3, *p.* 585;—*J. Grah. Cat. B. pl. p.* 187.—*Rheed.* 2, *t.* 40.) লাল বিছটী *Lal-bichhutee.* ⊙ Bombay. Bengal, (Serampore.) Fl. small, pale greenish-yellowish, R. S.; fr. C. S. The hairs of this plant sting like those of the common English nettle.

Procris, Commers. (*Spreng. syst.* 3, *p.* 760, *No.* 3101.)

1. *punctata*, Buch. (*Spreng. syst.* 3, *p.* 846.) ♃ Khassya Mountains. Nepal. Fl. minute, greenish, C. S.

C. Parietarieæ, Gaud.

(*Lindl. l. c.*)

Pouzolzia, Gaud. (*Horsf. pl. jav. rar.* 1, *p.* 64.)

1. *pentandra*, Bennett. (*Horsf. o. c. p.* 66, *t.* 14.—Urtica pentandra, *Roxb. fl. ind.* 3, *p.* 583.—Memorialis ciliaris, *Buch.*) পিপিরি সারা *Pipiri-sara.* ♃. Fl. very small, greenish, R. S.; fr. C. S. Bengal, (Serampore.) Nepal. Assam. Java.

2. *zeylanica*, Bennett. (*Horsf. o. c. p.* 67.—Urtica alienata, *L.*; *Roxb.* 3, *p.* 582.—Parietaria zeylanica, *L.*) ⊙ Ceylon. Fl. minute, brownish, R. S.; fr. C. S.

D. Cannabiëæ, (Cannabineæ, Bl.)

(*Lindl. Nat. Syst. p.* 177.)

Cannabis, L. (*Spreng. syst.* 3, *p.* 894, *No.* 3178;—*Endl. gen. pl.* 1, *p.* 286.) *Hemp.*

1. *sativa*, L. (*Spreng. syst.* 3, *p.* 903;—*Roxb. fl. ind.* 3, *p.* 772;—*J. Grah. Cat. B. pl. p.* 187;—*Rheed.* 10, *t.* 60. (male,) *t.* 61. (female.) Cannabis indica, *Rumph.* 5, *t.* 77.) গঞ্জা *Gunja.* ⊙ Siberia. Tauria. Scythia. Thracia. (Herod. 4. 74.) whence the Hemp-plant was introduced into the West by the inhabitants of Marseilles; at least Hiero, the Syracusan, is said (Athen. 5. 40.) to have received it from the river Rhodus for ropes. Fl. small, greenish-white, and fr. the whole year. In India cultivated every where in the plains, near villages, for the sake of the intoxicating liquor called *bhang*, which is prepared from it, also for the leaves which are smoked to cause intoxication. "In the Himalayas it is indigenous, extremely abundant at elevations of 6-7000 feet, and of very luxuriant growth, rising sometimes to a height of ten and twelve feet. Here though it likewise affords an intoxicating drug, it is also known for the tenacity of its fibre, which is employed by the mountaineers in Ghurwal and Sirmore for making a coarse sackcloth, and strong ropes for crossing their rivers." (*Royle.*) After so many experiments have been made to discover an efficient substitute for hemp, it is not a little remarkable that no attempts have been made to obtain the plant for commercial purposes, especially as its abundance and use in the North of India were fully known to Dr. Roxburgh, some twenty-six years ago, and by him placed before the public. The Grass-cloth of China would seem to be made of hemp, which the Malays use for sewing-thread and twine, and for making fishing-nets. That the hemp plant is highly narcotic, producing giddiness, symptoms of incipient intoxication, rush of blood to the head, bleeding from the nose, strangury, aphrodisiacal sensations, &c. is well known. Lately, however, it appears, from Dr. O'Shaughnessy's experiments with the *churrus* or hemp-resin, that this substance is an efficient remedy against traumatic tetanus. (*On the preparations of the Indian Hemp, or Gunjah, their effects on the animal system in health, and their utility in the treatment of tetanus, and other convulsive disorders. Calcutta,* 1839.)

E. Chlorophoreæ, Gaudich.

(*Lindl. Nat. Syst. p.* 177.)

Antiaris, Leschen. (*Spreng. syst.* 1, *p.* 374, *No.* 550;—*Endl. gen. pl. p.* 280.)

1. *toxicaria*, Leschen. (*Spreng. syst.* 1, *p.* 492;—*Rumph.* 2, *t.* 87;—*Bl. Rumph. p.* 56, *t.* 22, 23.) *The Upas-tree of Java.* L. ♄ Contains a most deadly poison that depends on the presence of Strychnia. Has been introduced in H. C. G. Fl. ?

CONOCEPHALUS, Bl. (*Bijdrag. p.* 484;—*Lindl. in B. Reg.* 14, *t.* 1203;—*Endl. gen. pl.* 1, *p.* 281.)

1. *naucleiflorus*, Lindl. (*l. c.*—C. suaveolens, *Bl. pl. jav. rar.* 1, *p.* 47, *t.* 12.—Urtica naucliflora, *Roxb.* (*H. B.* 1814.) *p.* 67;—*fl. ind.* 3, *p.* 592.) ♄ ◡ Chittagong. Silhet. Assam. Fl. minute, yellowish, fragrant, H. and R. S.; fr. May and June.
2. *globulifer*, Bennett. (Urtica globulifera, *Roxb. fl. ind.* 3, *p.* 593.) ♄ ◡ Silhet. Assam. In H. C. G. fl. H. and R. S.; fr. May and June.

F. MOREÆ, Gaudich.

(*Lindl. Nat. Syst. p.* 178.)

MORUS, L. (*Spreng. syst.* 1, *p.* 374, *No.* 551;—*Endl. gen. pl.* 1, *p.* 278.) *Mulberry.*

1. *alba*, L. (*Spreng. syst.* 1, *p.* 492;—*Roxb. fl. ind.* 3, *p.* 594;—*J. Grah. Cat. B. pl. p.* 194.) সফেদ তুত *Suphed-toot.* ♄ Persia. Asia Minor. Found in gardens in several parts of India. Fl. small, greenish, end of C. S.; fr. March. Much cultivated in S. Europe, for its leaves to feed the silk-worm "Mr. Mutti, an Italian, commenced a plantation of standard trees at the Heera Baugh, near Poona, six or seven years ago, on the principle that as soon as they attained a certain size, their roots would strike beyond the sun's influence, and render little irrigation necessary, at the same time that an equal quantity of leaves would be obtained from an equal space of ground, with the further advantage of growing annual crops between the rows of trees. The experiment has been successful, and small plantations under his direction are now gradually extending over the Deccan. One was made in Bombay, near Parell, of about 2000 trees, by Mr. De Ramos, in 1838. It bids fair to answer expectations. The plants are chiefly of the white St. Helena mulberry, to which Mr. Mutti gives the preference from its rapid growth, the small quantity of water required, and the nourishing qualities of its leaves." (*J. Grah.*) Morus alba contains moroxylic acid in combination with lime. (*Turner.*)
2. *nigra*, L. (*Spreng. syst.* 1, *p.* 492;—*Roxb. H. B. p.* 67;—*J. Grah. Cat. B. pl. p.* 194.) ♄ Persia. Introduced into H. C. G. in 1795, but had not fl. up to 1814. It is grown in Egypt for feeding silk-worms. (*Maccullough.*)
3. *atropurpurea*, Roxb. (*fl. ind.* 3, *p.* 595;—*J. Grah. Cat. B. pl. p.* 194?—M. rubra, *Lour.*) ♄ China. Fl. small, greenish, Feb.; fr. March and April. Attempts to feed the silk-worm with the leaves of this species have not succeeded. (*Roxb.*)
4. *rubra*, L. (*Spreng. syst.* 1, *p.* 492;—*Roxb. H. B. p.* 67.) ♃ N. America, from Canada to Florida. Fl. small, greenish, Oct. and Nov.
5. *indica*, L. (*Spreng. syst.* 1, *p.* 492;—*Roxb. fl. ind.* 3, *p.* 596;—*J. Grah. Cat. B. pl. p.* 194;—*Rumph. auct. t.* 5.) তুত *Toot.* ♄ Native place unknown. Extensively cultivated in Bengal to feed silk-worms;

the way in which this is done may be learnt from Roxb. l. c. Fl. small, greenish, Feb.; fr. April.

6. *tatarica*, Pall. (*Pers. syn.* 2, *p.* 557;—*Pall. ross.* 2, *p.* 9, *t.* 52;—*Roxb. H. B. p.* 67;—*fl. ind.* 3, *p.* 598.) ♃ Banks of the Wolga and Dnieper. Cultivated in gardens. In H. C. G. fl. Feb. (*Roxb.*)
7. *paniculata*, Roxb. (*fl. ind.* 3, *p.* 599.—Urtica fruticosa, *Bks. Herb.*—*Rumph.* 4, *t.* 56.) ♃ Moluccas. Fl. small, greenish, July; fr. Sept. Taste of the ripe fruit sweetish. (*Roxb.*)
8. *serrata*, Roxb. (*fl. ind* 3, *p.* 596.—M. cuspidata, *Wall. Cat.*) ♄ Kamaon. Sirmore, below Mussooree, and at Simla. Has been in the garden here more than fourteen years without flowering.
9. *multicaulis*, Perottet. (M. cucullata, *Bonafons.*) ♃ China. Philippine Islands. In H. C. G. Fl.? This species will probably entirely supersede the common white Mulberry for feeding silk-worms. (*Proceedings of Agric. and Hortic. Soc. Calcutta.* 1840, *January*, *p.* 9-13.)

? 10. *scandens*, Wall. (*Cat.*—*J. Grah. Cat. B. pl. p.* 194.) ♄ ◡ China. Fl. small, pale-green, C. S.

11. *bifaria*, Wall. (*Cat.*) In H. C. G. Fl.?

Ampalis, Bojer.

1. *madagascariensis*, Bojer. (Morus mauritiana, *Jacq. icon. rar.* 3, *t.* 617.—*Spreng. syst.* 1, *p.* 492;—*Roxb. fl. ind.* 3, *p.* 599.—M. Ampalis, *Poir.*) ♄ Madagascar. Fl. small, green, June and July; fr. Sept. and Oct.

Broussonetia, Vent. (*Spreng. syst.* 3, *p.* 893, *No.* 3170;—*Endl. gen. pl. p.* 278.)

1. *papyrifera*, Vent. (*Spreng. syst.* 3, *p.* 901;—*B. Repos.* 8, *t.* 488;—*B. M.* 50, *t.* 2358.—Papyrius japonica, *Lam.*; *Poir.*—Morus papyrifera, *L.*) *Paper mulberry tree.* ♄ Japan. Society Islands. New Zealand. Has been in the garden here more than twelve years without flowering. A kind of paper is manufactured from its bark by reducing it to a pulp, which is afterwards spread into sheets of greater or less thickness. (*Kämpf.*)

G. Ficeæ, Gaudich.

(*Lindl. Nat. Syst. p.* 178.)

Ficus, L. (*Spreng. syst.* 3, *p.* 758, *No.* 3075;—*Endl. gen. pl.* 1, *p.* 278.) *Fig.*

1. *Carica*, L. (*Spreng. syst.* 3, *p.* 785;—*Gärtn. fr.* 2, *p.* 66, *t.* 91, *f.* 7;—*Roxb. fl. ind.* 3, *p.* 528;—*J. Grah. Cat. B. pl. p.* 194.) ডুমুর *Doomoor. Common cultivated Fig-tree.* L. ♄ 5 S. Europe. N. Africa. Asia Minor. Cultivated in Arabia, Persia, and India. Fruit-receptacles solitary, sessile, turbinate, umbilicated, smooth, appearing March, April and May, ripening in June and July.
2. *triloba*, Buch. (F. hirsuta, *Roxb. H. B. p.* 65;—*fl. ind.* 3, *p.* 528; not Schott.—F. hirta, *Roxb. fl. ind.* 3, *p.* 531; not Vahl.) ♄ Silhet.

Assam. Fruit-receptacles in pairs, axillary, sessile, oval, very hairy, appearing H. S.; ripening R. S. Fruit eaten by the natives where the tree is indigenous. (*Roxb.*)

3. *caricoïdes*, Roxb. (*fl. ind.* 3, *p.* 529.) ♄ Patna. Gya. Rohilcund. Fruit-receptacles axillary, solitary, long-peduncled, turbinate, umbilicate, wrinkled, appearing and ripening the whole year. Fruit not eatable. (*Roxb.*)
4. *virgata*, Roxb. (*fl. ind.* 3, *p.* 530; not Reinwardt.) ♄ Rohilcund. Kemaon. Sirmore. Fruit-receptacles axillary, solitary, ovate, the size of a pea, longish-peduncled, appearing and ripening the whole year.
5. *urophylla*, Wall. N. E. Bengal.
6. *denticulata*, Vahl. (*symb.* 1, 83.—*enum.* 2. 202; not Bl.—F. quercifolia, *Roxb. fl. ind.* 3, *p.* 534.) ♄ creeping. Sumatra. Fruit-receptacles axillary, solitary, peduncled, short-oval, warty, the size of a pea, appearing and ripening the whole year.
7. *rubescens*, Vahl. (F. heterophylla, *Lam. Spreng. syst.* 3, 785; not L. fil. ex. Vahl. l. c.;—*Roxb. fl. ind.* 3, *p.* 532;—*Rheed.* 3, *t.* 62.—F. aquatica, *Kön.* excl. F. heterophylla, *L. fil.*—*Rheed.* 3, *t.* 62.) গুড়ি শিওরা *Goori-shiora*. ♄ ◡ Coromandel. Malabar Hill, Bombay. The Ghauts. Bengal, (Serampore.) Silhet. Assam. Fruit-receptacles axillary, paired, peduncled, round-turbinate, the size of a large gooseberry, scabrous, appearing and ripening the whole year. *Bark* of the root very bitter, given to remove pains in the bowels. (*Roxb.*)
8. *humilis*, Roxb. (*fl. ind.* 3, *p.* 535.) ♄ creeping. Sumatra. Fruit-receptacles paired, axillary, peduncled, the size of a pea, oblong, elevatedly-umbilicate. In H. C. G. appearing and ripening the whole year. (*Roxb.*)
9. *repens*, Roxb. (*fl. ind.* 3, *p.* 535;—*Spreng. syst.* 3, *p.* 783.—F. morifolia, *Vahl. enum.* 2, 203? not Forsk, quæ F. Forskählii, Vahl. 196; nor Lam. quæ lateriflora, Vahl. p. 197, ideoq. hd. Willd. p. 1150.) হুঁই ডুমুর *Bhooï-doomoor*. ♄ Creeping. Bengal, (Serampore.) Fruit-receptacles axillary, solitary, peduncled, obovate, roughish, the size of the point of the little finger, appearing and ripening the whole year.
10. *pisifera*, Wall. ♄ Penang. Fruit-receptacles axillary, solitary, sessile, smooth, the size of a pea, ripening H. S.
11. *radicans*, Roxb. (*fl. ind.* 3, *p.* 536.) ♄ ◡ radicant. Silhet. Fruit-receptacles axillary, solitary or paired, long-peduncled, globular, the size of a black currant; in H. C. G. appearing and ripening the whole year. (*Roxb.*)
12. *diadena*. (F. biglandulosa, Wall, not biglandula, Bl.) ♃ China. C. S.
13. *albinervis*, Wall. Mauritius. H. S.
14. *scabrida*, Wall. Penang. R. S.
15. *mangifolia*, Wall. Penang. R. S.

16. *anabatos,* (Ficus scandens, *Roxb. fl. ind.* 3, *p.* 536 ; not Lam.) ♄ ◡ Silhet. Fruit-receptacles axillary, paired, longish-peduncled, globular, rough, the size of a black currant ; in H. C. G. appearing and ripening the whole year. (*Roxb.*)
17. *Goolereea,* Roxb. (*fl. ind.* 3, *p.* 538.) ♄ Hindoosthan. Fruit-receptacles axillary, paired, long-peduncled, nearly globose, downy. Introduced into H. C. G. before 1814. Fl. ?
18. *Wassa,* Roxb. (*fl. ind.* 3, *p.* 539 ;—*Rumph.* 3, *t.* 94,) ♄ Moluccas. Fruit-receptacles axillary, solitary or paired, peduncled, compressedly turnip-shaped, smooth, the size of a gooseberry, appearing in H. C. G. in H. S. ; ripening, R. S. (*Roxb.*)
19. *indica,* L. (*Amoen. acad.* 1, *p.* 27 ;—*Roxb. fl. ind.* 3, *p.* 539 ;—*J. Grah. Cat. B. pl. p.* 189 ; not Forsk, nor Lam. or Vahl.—F. bengalensis, *L. syst ;—Rheed.* 1, *t.* 28.) বট *But. Banyan-tree.* L. ♄ radicant. Fruit-receptacles axillary, paired, sessile, as large as a middle-sized cherry, appearing and ripening H. S. Common all over India, in some places of an immense size. Lieut. Colonel Sykes mentions one at the village of Mhow, in the Poonah Collectorate, with 68 stems descending from the branches, and capable of affording shade, under a vertical sun, to 20,000 men. (*Madr. Journ. of Science, No.* 22.) *Kabir Bur,* near Broach, now the gloomy recess of superstitions, and the haunt of its hateful birds, the owls and flying foxes. (*Nimmo.*) *Bark* smooth, light ash-coloured. *Wood* light, white, and porous. *Leaves* used by the Brahmins to eat off, for which purpose they are joined together by inkles. *Birdlime* is prepared from the tenacious milky juice, which every part of the tree yields in abundance on being wounded. Birds eat the fruit, and the seeds grow the better for having passed through them. If they drop in the axils of the leaves of the Palmyra-tree, (Borasus flabelliformis, L.) they grow, and extend their descending parts so as in time to embrace entirely the Palmyra, except its upper parts. In very old ones the top thereof is just seen issuing from the trunk of the Banyan itself, as if it grew from thence, whereas it runs down through its centre, and has its roots in the ground, the Palm being the oldest. (*Roxb.*)
20. *elastica,* Roxb. (*fl. ind.* 3, *p.* 541 ;—*Spreng. syst.* 3, *p.* 781 ;—*J. Grah. Cat. B. pl. p.* 190.) *Indian Rubber-tree.* L. ♄ radicant. Khassya Mountains. Assam. Friut-receptacles axillary, paired, sessile, oval, smooth, the size of an olive, appearing, H. S. ; ripening, R. S. Every part of this tree abounds in a rich milky juice which furnishes about one-third of its weight of Caoutchouc, a substance also discovered by Dr. Roxburgh in Urceola elastica, Roxb., Willoughbeia edulis, Roxb., and Melodinus monogynus, Forst. With the milky juice the natives paint the insides of their vessels and baskets, and the Caoutchouc furnishes them with candles and flambeaux. (*Roxb.*) For a circumstantial account of this tree, see Roxb. l. c.

21. *laccifera*, Roxb. (*fl. ind.* 3, *p.* 545.) L. ♄ Silhet. Fruit-receptacles axillary, sessile, oval, smooth, the size of a gooseberry, appearing H. S.; ripening R. S. (*Roxb.*)
22. *religiosa*, L. (*Spreng. syst.* 3, *p.* 778; not Forsk.;—*Roxb. fl. ind.* 3, *p.* 547;—*J. Grah. Cat. B. pl. p.* 190;—*Rheed.* 1, *t.* 27;—*Rumph.* 3, *t.* 91.) অশ্বত্থ *Ashwuth.* পিপ্পল *Pippul.* L. ♄ Common all over India. Fruit-receptacles axillary, paired, sessile, depressed, the size of a small cherry, appearing H. S.; ripening R. S. Birds are very fond of the fruit, eat it greedily, and often drop the seeds in cracks of buildings, where they vegetate, occasioning great damage if not removed in time. *Wood* light and of little use.
23. *Rumphii*, Bl. (*p.* 437;—*Roxb. H. B. p.* 66;—*fl. ind.* 3, *p.* 548; not *Bl*;—*Rumph.* 3, *t.* 91 and 92.) L. ♄ Moluccas. Bengal, (Serampore.) Assam. Kemaon. গয়াশ্বত্থ *Guyashwuth.* Fruit-receptacles axillary, sessile, paired, globular, smooth, the size of a cherry, appearing H. S.; ripening R. S.
24. *Tsiela*, Roxb. (*fl. ind.* 3, *p.* 849;—*J. Grah. Cat. B. pl. p.* 191;—*Rheed.* 3, *t.* 63.) L. ♄ Mountains and Plains of Coromandel. The Ghauts. Fruit-receptacles axillary, paired, sessile, round-turbinate, smooth, the size of a cherry, in H. C. G. appearing H. S.; ripening R. S. (*Roxb.*)
25. *venosa*, Ait. (*Spreng. syst.* 3, *p.* 779; not Willd.—F. infectoria, *Willd.*;—*Roxb. fl. ind.* 3, *p.* 551;—*J. Grah. Cat. B. pl. p.* 191;—*Rheed.* 3, *t.* 64.) পাকুড় *Pakoor.* L. ♄ The Concans. Bengal, (Serampore.) Fruit-receptacles paired, axillary, sessile, globular, smooth, the size of a pea, appearing H. S.; ripening R. S.
26. *racemifera*, Roxb. (*fl. ind.* 3, *p.* 560;—*Rumph.* 3, *t.* 93.) ♃ Sumatra. Fruit receptacles solitary, short-peduncled, shortly turbinate, flattish, on compound glomerate racemes, from the woody part of the tree below the leaves, in H. C. G. appearing and ripening throughout the year.
27. *rapiformis*, Roxb. (*fl. ind.* 3, *p.* 551.) ♄ Moluccas. Fruit-receptacles axillary, solitary, short-peduncled, turnip-shaped, the size of a small medlar, appearing in H. C. G. in Sept. and Oct. (*Roxb.*)
28. *excelsa*, Vahl. (*Spreng. syst.* 3, *p.* 783;—*Roxb. fl. ind.* 3, *p.* 552;—*J. Grah. Cat. B. pl. p.* 191;—*Rheed.* 3, *t.* 58.) ♄ Moluccas. Peninsula of India. Fruit-receptacles axillary, solitary or paired, peduncled, somewhat turbinate, smooth, the size of a cherry, appearing in June and July; ripening C. S.
29. *vagans*, Roxb. (*fl. ind.* 3, *p.* 537.) ♄ ◡ radicant. Chittagong. Silhet. Fruit-receptacles axillary, paired or solitary, long peduncled, nearly globular, the size of a nutmeg, in H. C. G. appearing, H. S.; ripening R. S. (*Roxb.*)
30. *Blumii*, Wall. (F. exasperata, *Roxb. fl. ind.* 3, *p.* 555; not Vahl.—*Rumph.* 4, *t.* 63?) ♃ Moluccas. Fruit-receptacles axillary, solitary,

or paired, peduncled, globular, size of a pea, rough, appearing in Sept.; ripening in Dec. (*Roxb.*)

31. *nitida*, Thunb. (*Spreng. syst.* 3, *p.* 781;—*J. Grah. Cat. B. pl. p.* 190;—*Rheed.* 3, *t.* 55.) ♃ China. Lower Nepal. Khassya Mountains. Penang. Coromandel. Fruit receptacles lateral, fascicled, globular, sessile, the size of a large pea, smooth, appearing C. S.; ripening H. S. *Fruit* eaten by birds.

32. *polycarpa*, Roxb. (*fl. ind.* 3, *p.* 556.) ♃ Moluccas. Penang. Singapore. Fruit-receptacles in fascicles from the trunk, and large branches, peduncled, globular, scabrous, the size of a large pea, in H. C. G. appearing and ripening R. S. (*Roxb.*)

33. *Roxburghii*, Wall. (*Cat.*—F. macrophylla, *Roxb. fl. ind.* 3, *p.* 556;—not Desf. nor Decaisne.) ♃ Chittagong. Silhet. Nepal. Fruit-receptacles collected in bundles near the root of the stem, and on the lower parts of the branches, turnip-shaped, 8-12 ribbed, hairy, as large as the common fig, or larger, when ripe diffusing a strong scent of Russia leather, appearing and ripening throughout the year. *Fruit* eaten by the natives, where the tree is indigenous. (*Roxb.*)

34. *lanceolata*, Roxb. (*fl. ind.* 3, *p.* 557.) ♃ Chittagong. Fruit-receptacles in bundles near the root of the trunk and larger branches, peduncled, warty, compressedly turbinate, deeply umbilicate, the size of a small common fig, appearing and ripening more or less throughout the year.

35. *glomerata*, Roxb. (*Corom.* 2, *t.* 123;—*fl. ind.* 3, *p.* 558;—*Spreng. syst.* 3, *p.* 781;—*J. Grah. Cat. B. pl. p.* 190. excl. syn. L. and Rheed. —*Rumph.* 3, *t.* 94.) যজ্ঞ ডুমুর *Juguya-doomoor*. L. ♄ Coromandel. Common about Vear on Salsette, and generally by the banks of watercourses throughout the Concans. Table-land of Mahableshwur. Bengal, (Serampore.) Fruit-receptacles short-peduncled, turbinate, nearly as large as a common fig, downy, umbilicated, appearing and ripening throughout the year. The *fruit* disagreeable, but eaten by the natives. (*Roxb.*)

36. *Cunia*, Buch. (*Roxb. fl. ind.* 3, *p.* 561.—F. conglomerata, *Roxb. o. c. p.* 559;—*J. Grah. Cat. B. pl. p.* 190, excl. syn. Rumph.—*Rheed.* 3, *t.* 61.) ♄ Coromandel. The Concans. Taong-Dong. Moulmein. Rajmahl. Oude. Nepal. Fruit-receptacles turbinate, ribbed, pedicelled, the size of a large filbert, hairy, umbilicated, generally in pairs or in threes, on long, procumbent, radical and cauline, compound, leafless branches, appearing and ripening throughout the year.

37. *congesta*, Roxb. (*fl. ind.* 3, *p.* 560.) ♃ Moluccas. Fruit-receptacles short-peduncled, roundish-turbinate, smooth, the size of a filbert, heaped on radical and cauline, short, leafless, ramous branchlets, appearing and ripening throughout the year. (*Roxb.*)

38. *oppositifolia*, Roxb. (*Corom.* 2, *t.* 124;—*fl. ind.* 3, *p.* 561; excl. syn. Rheed.—*Spreng. syst.* 3, *p.* 784; excl. syn. Dæmonum.—*J.*

Grah, Cat. B. pl. p. 191.) কাক ডুমুর *Kaku-doomoor.* ♄ Coromandel. Hills east of Panwell. Kandella. Bengal, (Serampore.) Fruit-receptacles in axillary pairs, peduncled, globular, umbilicated, hairy, the size of a large nutmeg, or on cauline racemes, appearing and ripening throughout the year. This species is, from its being sown by birds, a great destroyer of houses and walls.

39. *Dæmonum,* Kön. MSS. (*Vahl. enum.* 2, *p.* 198; not Roth.;—*Roxb. fl. ind.* 3, *p.* 562;—*Spreng. syst.* 3, *p.* 784.) ♄ Coast of the Tanjore Country. Fruit-receptacles in pairs, on long radical racemes, often under ground, or single or in pairs on the trunk and branches, obovate, very hairy, umbilicated, the size of a large nutmeg, in H. C. G. appearing and ripening throughout the year. (*Roxb.*)

40. *Ampelos,* Burm. (*ind. p.* 226.—F. asperrima, *Roxb.;—Rheed.* 3, *t.* 60.) Hilly parts of the Concan.

41. *Benjamina,* L. (*Mant.—Roxb. fl. ind.* 3, *p.* 550;—*Rheed.* 1. *t.* 26.) Kamrup. Peninsula of India.

42. *artocarpifolia,* Wall. Penang. Dec. 1833.

G. Dorsteniëæ, Gaudich.

(*Lindl. Nat. syst. p.* 178.)

Dorstenia, L. (*Spreng. syst.* 3, *p.* 758. *No.* 3074;—*Endl. gen. pl.* 1, *p.* 278.)

1. *Contrayerva,* L. (*Spreng. syst.* 3, *p.* 777.—*Plum. ed. Burm. t.* 119;—*Jacq. icon. rar.* 4, *t.* 614.) ♃. Peru, Mexico, and some of the W. India Islands. Fl. most minute, green, on a fleshy receptacle, R. S.; fr. C. S. but not often. *Root* bitterish, somewhat pungent, with a remarkable overpowering odour, sudorific, formerly used as an antidote to the bites of venomous animals. (*Feé.*)

H. Artocarpeæ, Gaudich.

(*Lindl. Nat. Syst. p.* 178.)

Artocarpus, L. (*Spreng. syst.* 3, *p.* 758. *No.* 3082;—*Endl. gen. pl.* 1, *p.* 281.

1. *integrifolius,* L. (*Suppl.;—Spreng. syst.* 3, *p.* 804;—*Roxb. Corom.* 3, *t.* 250;—*fl. ind.* 3, *p.* 522;—*B. M.* 55, *t.* 2833-34;—*J. Grah. Cat. B. pl. p.* 192.—A. heterophylla, *Lam.*—Rademachia integra, *Thunb. act. holm.* 36, *p.* 252.—Polyphema Jaca, *Lour.*—Sitodium cauliflorum, *Gärtn. fr.* 1, *p.* 345, *t.* 71, 72;—*Rheed.* 3, *t.* 26, 27, 28;—*Rumph.* 1, *t.* 30, 31.) কাঁটাল *Kantal. Jack-fruit. Entire-leaved Bread-fruit.* ♄ Moluccas. Both Peninsulas of India. Ceylon. Bengal, (Serampore.) Much cultivated. Fl. very minute, greenish or (the male) white, crowded on a large receptacle, so as to form an amentum, Jan. and Feb.; fr. May, June and July. *Wood* hard, approaching in appearance to mahogany, much used for furniture in Ceylon, and some other parts of India. The natives prepare their best *birdlime* from the tenacious white juice, which abounds in all the uneatable parts

of the fruit, and the young tender parts of the tree, and flows freely from recent wounds. The large *fruit*, which grows from the trunk and larger branches, forms to the natives, f. ex. in Ceylon, a considerable article of diet. *Seeds*, when roasted, not inferior to the best chestnuts. (*Roxb.*)

2. *Lacoocha*, Roxb. (*fl. ind.* 3, *p.* 524;—*J. Grah. Cat. B. pl. p.* 193.) ডেঁফল *Déphul.* Bengal, (Serampore.) Not uncommon in gardens. Fl. minute, internally rose-coloured; aments appearing in March, April and May.; fr. R. S. *Whole tree*, and unripe fruit containing much tenacious, milky juice. The *roots* dye yellow. *Male spadix* acid, astringent, eaten by the natives in their curries. *Fruit* eaten by the natives. (*Roxb.*)
3. *Chaplasha*, Roxb. (*fl. ind.* 3, *p.* 525.) L. ♄ Chittagong. Tipperah. Assam. Aments appearing from Feb. to May; fr. R. S. From this immense tree *canoes* are made for the Fennee and Gomootee rivers. The *wood* is also useful for many other purposes, particularly when it is to be employed under water. (*Roxb.*)
4. *echinatus*, Roxb. (*fl. ind.* 3, *p.* 527.) *Tampooni.* ♄ Malay Islands. In H. C. G. fl. H. S. (*Roxb.*)
5. *incisus*, L. fil. (*B. M.* 55, *t.* 2869, 70, 71. *α. and* β.—*Roxb. fl. ind.* 3, *p.* 527;—*J. Grah. Cat. B. pl. p.* 192.)
   α. fruit seed-bearing. (*Bread-nut.*—Artocarpus incisus, *L. fil. Spreng. syst.* 3, *p.* 804.—Rademachia incisa, *Thunb. act. holm. p.* 250, *t.* 36.—Rima ou Fruit au Pain, *Sonn. it. t.* 57-60.—Soccus granosus, Rumph. 1, t. 33.) Fruit muricated.
   β. *without seeds.* (*Bread-fruit.*—Artocarpus communis, *Forst. gen. pl. p.* 102, *t.* 51.—Soccus lanosus, *Rumph.* 1, *t.* 32.) Fruit not muricated, but marked with reticulations, whose areolæ are flat, or but slightly prominent.

   ♄ South Sea Islands, especially Otaheite. Molucca Islands. Java. Sumatra. Mauritius. Bourbon. Now domesticated, or at least much cultivated in the W. Indies, and on the American Continent, from Spanish Guiana to New-Granada. Thus, as Humboldt says, the western coast of America, washed by the Pacific Ocean, receives from a British settlement in the W. Indies, a production of the Friendly Islands. Introduced into H. C. G. before 1794, but had not fl. there up to 1814, the winters of Bengal being too cold for it.
6. *hirsutus*, Lam. (*Roxb. fl. ind.* 3, *p.* 521;—*Rheed.* 3, *t.* 32.) Malabar.
7. *serratus*, Roxb. (*H. B. p.* 66.) ♄ Travancore. Introduced into H. C. G. in 1808, but had not fl. up to 1814.
8. *angustifolius*, Roxb. (*l. c.*) ♄ Malay Islands. Introduced into H. C. G. in 1800, but had not fl. up to 1814.

MACLURA, Nutt. (*Endl. gen. pl.* 1, *p.* 278.)

1. *tinctoria*, D. Don. (*Loud. hort. brit. p.* 380, *No.* 23179.—Broussonetia tinctoria, *Kth.*;—*Spreng. syst.* 3, *p.* 901; excl. syn. Nutt.—Morus

tinctoria, *L.*) *Fustick.* ♄ W. Indies. New-Granada. Brazil. Has not fl. here. Fustick, a yellow dye, is the *wood* of this tree.

2. *Calcar galli,* Lodd. MSS. ♄ Native place ? Has not fl. here.

I. Batiëæ, (Batideæ, Mart.)

(*Lindl. Nat. Syst. p.* 178.)

Batis, P. Br. (*Spreng. syst.* 3, *p.* 893, *No.* 3169;—*Juss. gen. pl. p.* 443.)

? 1. *spinosa,* Roxb. (*fl. ind.* 3, *p.* 762, *No.* 1;—*Trophis spinosa,* Willd.;—*Spreng. syst.* 3, *p.* 902; not *Roxb. fl. ind.* 3, *p.* 762, *No.* 2;—*Rumph.* 5, *t.* 15, *f.* 2.) L. ♄ ◡ Moluccas. Coromandel. Introduced into H. C. G. in 1802, but had not fl. up to 1814.

? 2. *fruticosa,* Roxb. (*fl. ind.* 3, *p.* 763.) ♄ Chittagong. In H. C. G. fl. Oct.; fr. May. (*Roxb.*)

? 3. *aurantiaca,* Wall. MSS. Native place ? In H. C. G. Fl. ?

Epicarpurus, Bl. (*Bijdr. p.* 488;—*Endl. gen. pl.* 1, *p.* 277.)

1. *orientalis,* Bl. (Trophis spinosa, *Roxb. fl. ind.* 3, *p.* 762 ?) ♄ Mountains of India. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

Brosimum, Swz. (*Spreng. syst.* 1, *p.* 6, *No.* 49;—*Endl. gen. pl.* 1, *p.* 279.)

1. *Alicastrum,* Swz. (*fl. ind. occ.* 1, *t.* 1, *f.* 1;—*Spreng. syst.* 1, *p.* 22;—*Roxb. H. B. p.* 71.) *Jamaica Bread-nut Tree.* ♄ Jamaica. Introduced into H. C. G. in 1804, but had not fl. up to 1814. Abounds in a tenacious, gummy *milk.* Its *leaves* and *young shoots* are much eaten by cattle, but when they become old, they cease to be innocuous. The roasted *nuts* are used instead of bread, and have much the taste of Hazel nuts. (*Swz.*)

2. *utile,* Endl. (*l. c.*—Galactodendron utile, *Humb.*—*B. M.* 66, *t.* 3723-24.—Palo de Vaca, *Humb.*) *Cow Tree of the Caracas.* ♄ *Stem* more than twenty feet in circumference at about five feet from the root, running up to a height of sixty feet, perfectly uninterrupted by either leaf or branch, when its vast arms and minor branches, most luxuriantly clothed with foliage, spread on every side, fully twenty-five or thirty feet from the trunk, and rise to an additional elevation of forty feet, so that this stupendous tree is upwards of a hundred feet high. Native place Caracas, more peculiarly on the Cordillera of the shore, at an elevation of about 4000 feet, in dense forests where the thermometer in May is 70°. Incisions made in the trunk of the tree are followed by a profuse flow of gluey, thickish *milk,* destitute of acridity, of an agreeable balsamic odour, and very nutritious. The negroes and free people, who work in the plantations, soak in it bread made of Maize, Cassava, &c. and generally grow stouter during the season when the Palo de Vaca yields most milk. (*Humb.*) In H. C. G. where, however, it does not thrive.

Trophis, P. Br. (*Spreng. syst.* 3, *p.* 893, *No.* 3172;—*Endl. gen. pl. p.* 281.

1. *aspera,* Retz. (*Spreng. syst.* 3, *p.* 902;—*Roxb. fl. ind.* 3, *p.* 761;—*J. Grah. Cat. B. pl. p.* 176.—Streblus asper, *Lour.*—Achymus asper,

Soland MSS.—*Rheed.* 1, *t.* 48.) শেওড়া *Sheora.* শাড়া গাছ *Sharagachh.* ♄ 5 Coromandel. Malabar Hill, Bombay. Throughout the Concans. Cochin China. Ava. Bengal, (Serampore.) Fl. minute, greenish-yellow, C. S.; fr. H. S. *Leaves* employed by the Natives to polish ivory. *Wood* used for fuel. *Berries* greedily eaten by birds. (*Roxb.*)

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* *Urtica trinervia,* Roxb. ♄ Chittagong.—*U. vesicaria,* Roxb. ♄—*U. paniculata,* Roxb. ♄ Moluccas.—*U. lineata,* Roxb. ♄ Moluccas.—*U. inæqualifolia,* Roxb. ♄ Chittagong.—*U. Parietaria,* L. ♄ Jamaica.—*U. grandifolia,* L. ♄ W. Indies.—*U. Simsii,* (U. involucrata, Sims; B. M. 51, t. 2481; not Roxb.) ♄ W. Indies.—*U. reticulata,* Swz,; B. M. 52, t. 2567. ♄ Jamaica.—*U. rufa,* Swz. ♄ Jamaica.—*U. Roxburghii,* (U. accuminata, Roxb. not Poir.) ♄ Chittagong.—*U. acuminata,* Poir. ♄ Mascarenhas Islands.—*U. elata,* Swz, ♄ Jamaica.—*Böhmeria caudata,* Swz. ♄ Jamaica.—*B. macrophylla,* D. Don. ♄ Nepal.—*B. platyphylla,* D. Don. ♄ Nepal.—*B. frutescens,* Thunb. ♄ Nepal.—*B. frondosa,* D. Don. Nepal.—*B. ternifolia,* D. Don. Nepal.—*B. nudiflora,* Willd. ♄ Caracas.—*Procris urticæfolia,* Poir. St. Domingo.—*P. rupestris,* Buch. Nepal.—*P. monandra,* Buch. Nepal.—*P. integrifolia,* D. Don. Nepal.—*Forsköhlea tenacissima,* L. Egypt. Persia.—*Cecropia peltata,* L. ♄ W. Indies.—*C. palmata,* Willd. ♄ Brazil.—*C. concolor,* Willd. ♄ Brazil.—*Broussonetia integrifolia,* Buch. ♄ Goalpara.—*Morus lævigata,* Wall. Nepal. Saharunpore.—*M. viridis,* Buch. Patna.—*Ficus pedunculata,* Ait. ♄ S. America.—*F. crassinervia,* Desf. ♄ South America.—*F. populnea,* Willd. ♄ S. America.—*F. cotinifolia,* Kth. ♄ Mexico.—*F. rubrinervia,* Lk. ♄ Brazil.—*F. acuminata,* Buch. B. M. 60, t. 3282. Silhet.—*F. comosa,* Roxb.; B. M. 61, t. 3305. ♄ The Ghauts and hilly parts of the Concans.—*F. citrifolia,* Lam.; Rheed. 3, t. 57. ♄ The Concans.—*F. terebrata,* Willd. Rheed. 3, t. 56. ♄ The Concans.—*F. racemosa,* L. Rheed. 1, t. 25. ♄ The Concans.—*F. palamoïdes,* (F. palmata, Roxb. not Forsk.) Penang.—*F. squamosa,* Roxb. ♄ Rohilcund.—*F. laminosa,* Hardw. ♄ Chinalee Mountains.—*D. scabrella,* Roxb. ♄ ◡ Chittagong.—*F. fruticosa,* Roxb. ♄ Chittagong.—*F. hederacea,* Roxb. ♄ ◡ Chittagong.—*F. sclerophylla,* Roxb. L. ♄ Chittagong.—*F. obtusifolia,* Roxb. not Kth. L. ♄ Chittagong.—*Dorstenia Houstonii,* L.; B. M. 45, t. 2017. ♃. New Spain.—*D. arifolia,* Lam. B. M. 51, t. 2476. ♃. Brazil.—*D. ceratosanthes,* Lodd.; B. M. 54, t. 2760. ♃. S. America ?—*D. tubicina,* Ruiz. and Pav. B. M. 55, t. 2804. ♃. Peru. Malabar.—*Artocarpus philippensis,* Lam. ♄ Philippine Islands.—*A. Polyphema,* Pers. Rumph. 1, t. 31. ♄ Penang.—*Lepurandra saccidora,* Nimmo. L. ♄ Ravines at Kandalla.

SUB-ORDER.—CERATOPHYLLEÆ, DC.—Lindl. Nat. Syst. p. 178.

Floating herbs, of 1 genus, and 5-6 species: 2 natives of Europe and 3-4 of the Peninsula of India. One of the latter also common to Eygpt. Properties unknown.

CERATOPHYLLUM, L. (*Spreng. syst.* 3, *p.* 762, *No.* 3131;—*Endl. gen. pl. p.* 268.)

1. *verticillatum*, Roxb. (*Fl. ind.* 3, *p.* 624.) ⊙ Bengal, (Serampore.) Fl. Feb. and March, most minute; fr. H. S.

ORDER CXXI.—ULMACEÆ, Mirb.—Lindl. Nat. Syst. p. 178.

THE ELM TRIBE.

Trees or shrubs, by Lindl. referred to 6 genera. Of these Spreng. syst. assigns 9 species to S. America, Mexico and the W. Indies; 9 to N. America; 5 to Europe; 2 to Caucasus; 1 to Dahuria; 1 to Siberia; and 1 to Senegambia. In the E. Indies have been discovered according to Spreng. Wall. Cat. and Royl. ill. 5 species of *Ulmus;* (Nepal, Kemaon, Kunawur, Hurdwar, Chittagong,) and 13 of *Celtis;* (Nepal, Khassia Mountains, Circars, Penang, Singapore,) How many of the latter must be referred to *Sponia*, we have no means to ascertain.

The Elms are well known in Europe as good timber-trees. The same may be said of those found in India and its mountains. (*Royle.*)

ULMUS, L. (*Spreng. syst.* 1, *p.* 532, *No.* 1099;—*Endl. gen. pl.* 1, *p.* 276.) *Elm.*

1. *integrifolia*, Roxb. (*Corom.* 1, *t.* 78;—*fl. ind.* 2, *p.* 68;—*Spreng. syst.* 1, *p.* 931;—*J. Grah. Cat. B. pl. p.* 188.) L. ♄ Circar Mountains. Hurdwar. Foot of the Himalayas. Malabar Hill, Bombay. Salsette. Ghauts, near Arcot. In H. C. G. fl. C. S. *Wood* of good quality, and employed for a variety of uses, f. ex. for making carts, door-frames, &c. Forks of the branches used by the natives to protect their straw against cattle.
2. *virgata*, Roxb. (*fl. ind.* 2, *p.* 67;—*Wall. pl. as. rar.* 3, *t.* 290.) ♄ China. Nepal. Kemaon. Mussooree. Fl. small, orange, Nov.; fr. Feb.

CELTIS, Tourn. (*Spreng. syst.* 1, *p.* 532, *No.* 1101;—*Endl. gen. pl.* 1, *p.* 276.)

1. *australis*, L. (*Spreng. syst.* 1, *p.* 932.) L. ♄ S. Europe. Barbary. In H. C. G. Fl. ?
2. *occidentalis*, L. (*Spreng. l. c.—Gärtn, fr.* 1, *p.* 374, *t.* 77, *f.* 3;—*Roxb. II. B. p.* 21.) L. ♄ Tropical and North America. Fl. small, green, C. S.

Sponia, Commers. (*Endl. gen. pl.* 1, *p.* 276.)

1. *orientalis*, (Celtis orientalis, *L.*;—*Roxb. fl. ind.* 2, *p.* 65;—*J. Grah. Cat. B. pl. p.* 189;—*Buch. Trans. Linn. Soc.* 17, *p.* 207, *No.* 1, 2, 3, 4, 5.—*Rheed.* 4, *t.* 40.) জীবন *Jeebun.* ♄ Ceylon. Coromandel. Common along the foot of the Ghauts; Kennery forests, Salsette, &c. Bengal, (Serampore.) Silhet. Assam. Nepal. Fl. very small, green; and fr. the whole year. The inner *bark* of this tree, consisting of numerous reticulated fibres, forms a kind of natural cloth, used by the *Garos* for covering their nakedness. *Leaves* used by the Natives for polishing horn. (*Buch.*)
2. *tetrandra*, (Celtis tetrandra, *Roxb. fl. ind.* 2, *p.* 63.—C. Akata, *Buch.; Trans. Linn. Soc.* 17, *p.* 211.) ♄ Coromandel. Assam. Oude. Nepal. Kemaon. Fl. very small, green, March; fr. Sept.

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* *Ulmus erosa*, Roth. ♄ Kemaon.—*U. lanceæfolia*, Roxb.; Wall. pl. as. rar. 2, t. 200. L. ♄ Chittagong.—*Celtis Roxburghii*, (C. trinervia, Roxb.; not Lam.) ♄ Chittagong.—*C. tomentosa*, Roxb. ♄ Chittagong.—*C. amboinensis*, Vent. ♄ Silhet. Penang. Singapore.—*C. angustifolia*, Lindl. Penang.—*C. elongata*, Lindl. Silhet.—*C. cinnamomea*, Lindl. Silhet.—*Mertensia lævigata*, Kth. New Spain.—*M. zizyphoïdes*, Kth. New Granada.

ORDER CXXII.—ANTIDESMACEÆ,—Stilaginaceæ, Lindl. Nat. Syst. p. 179.

Trees or shrubs, referred to 2 genera, *Antidesma* and *Falconeria*. Of the former, one species has been found in Madagascar, and 13 in the E. Indies, (Nepal. Khassya Mountains. Circars. Penang.) The latter includes but 2 species, both from the Himalayas. Properties almost unknown.

Antidesma, L. (*Spreng. syst.* 1, *p.* 523, *No.* 940;—*Endl. gen. pl.* 1, *p.* 287.)

1. *tomentosum*, (Stilago tomentosa, *Roxb. fl. ind.* 3, *p.* 757.) ♄ Silhet. Fl. minute, green, May and June; fr. Sept. and Oct.
2. *Bunius*, Spreng. (*syst.* 1, *p.* 826.—A. alexiterium, *Spreng. l. c.*;—*J. Grah. Cat. B. pl. p.* 186.—Stilago Bunius, *L.*;—*Roxb. fl. ind.* 3, *p.* 758;—*Rheed.* 4, *t.* 56;—*Rumph.* 3, *t.* 131, excl. A.) ♄ Moluccas. Penang. Coromandel. Kandalla Ghaut. Assam. Nepal. Fl. minute, greenish, March and April; fr. Sept. Fruit acidulous, palatable.
3. *diandrum*, Spreng. (*syst.* 1, *p.* 826.—Stilago diandra, *Roxb. Corom.* 2, *t.* 166;—*fl. ind.* 3, *p.* 759.) ♄ Circar Mountains. Assam. Nepal. Fl. very small, greenish, June; fr. C. S. *Wood* used for various purposes. *Ripe berries* eaten by the natives. (*Roxb.*)

4. *lanceolarium*, Wall. (*Cat.*—Stilago lanceolaria, *Roxb. fl. ind.* 3, *p.* 760.) L. ♄ Chittagong. Fl. minute, greenish, May and June; fr. C. S.

5. *pubescens*, Roxb. (*Corom.* 2, *t.* 167;—*fl. ind.* 3, *p.* 770;—*Spreng. syst. p.* 826;—*J. Grah. Cat. B. pl. p.* 186;—*Rheed.* 5, *t.* 11.) ♄ Circar Mountains. S. Concan. Fl. minute, greenish-yellow, H. S.; fr. R. S. *Berries* eaten by the natives. (*Roxb.*)

6. *paniculatum*, Roxb. (*fl. ind.* 3, *p.* 770;—*Spreng. syst.* 1, *p.* 826;—*J. Grah. Cat. B. pl. p.* 186.) খুদি জাম *Khoodi-jam.* ♄ S. Concan. Penang. Bengal, (Serampore.) Silhet. Nepal. Fl. minute, pale greenish, April and May; fr. July. *Berries* acidulous, of a pleasant taste.

7. *macrophyllum*,
8. *acuminatum*,
9. *rugosum*,

} Wall. MSS. Silhet. In H. C. G. Fl.

FALCONERIA, Royle, (*ill. p.* 354.)

1. *Wallichiana*, Royle. (*o. c. t.* 98, *f.* 3.) ♄ Nepal. Lately introduced.

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* *Antidesma sylvestre*, Lam. Rheed. 5, t. 26. ♄ S. Concan.—*Falconeria insignis*, Royle, ill. t. 98, f. 2, ♄ Deyra-Dhoon.

ORDER CXXIII.—MYRICACEÆ,—Lindl. Nat. Syst. p. 179.

THE GALE TRIBE.

Aromatic shrubs or trees, by Lindl. referred to 4 genera. Of these, according to Spreng. syst. 10 species are natives of S. America; 3 of N. America; 4 of S. Africa; 1 of the Azores; 1 of Europe; 4-5 are found in the E. Indies. The latter are 3-4 *Myricas;* (Nepal Mountains. Singapore. Peninsula of India.) and 1 *Putranjiva*, (Assam, and Khassya Mountains, Oude, Coromandel.) Royle observes that Myrica sapida is in his opinion not distinct from M. integrifolia.—M. esculenta and octandra, Buch. we find only in Spreng. c. p. pag. 47 and 48. Are they really distinct from Roxburgh's plant? Properties of no great importance. "Comptonia asplenifolia, Ait. posesses astringent and tonic properties, and is much used in the domestic medicine of the United States in cases of diarrhœa. *Barton.* 1, p. 224. The root of Myrica cerifera, L. is a powerful astringent, and wax is obtained in great abundance from its berries." (*Lindl.*)

MYRICA, L. (*Spreng. syst.* 1, *p.* 374, *No.* 554;—*Endl. gen. pl.* 1, 271.)

1. *integrifolia*, Roxb. (*fl. ind.* 3, *p.* 765.) L. ♄ Khassya Mountains. In H. C. G. fl. December and January; fr. May. *Fruit* pickled by the natives, and used as a condiment. (*Roxb.*)

2. *sapida*, Wall. (*tent. fl. nep. t.* 45.) Himalayas, from the Sutlej to Silhet. *Fruit* agreeably flavoured. Introduced in 1840.

PUTRANJIVA, Wall. (*Endl. gen. pl.* 1, *p.* 287.)

1. *Roxburghii*, Wall. (*Cat.*;—*Royle. ill. t.* 100;—*Endl. ichnogr. t.* 19.—Nageia Putranjiva, *Roxb. fl. ind.* 3, *p.* 766;—*J. Grah. Cat. B. pl. p.* 196;—*Rheed.* 7, *t.* 59.) L. ♄ Coromandel Mountains. Ravines at Nagotnah and Kandalla. Kennery jungles, Salsette. Jungles to the N. and E. of Belgaum. Concans. Silhet. Assam. Oude. Common along the foot of the Himalayas. Fl. minute, yellow, March and April; fr. January. *Wood* white, close grained, and very hard. *Nuts* strung by parents round the necks of their children to keep them in health. (*Roxb.*)

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* *M. mexicana*, Willd. Mexico.—*M. xalapensis*, Humb. Mexico.—*M. arguta*, Humb. Mexico.—*M. segregata*, Jacq. Brazil.

ORDER CXXIV.—JUGLANDACEÆ, Lindl. Nat. Syst. p. 180.

THE WALNUT TRIBE.

Trees, referred to 4 genera. Of these Spreng. syst. enumerates 14 species from N. America; 1 from Greece, Asia Minor and Persia; 1 from Caucasus; and 1 from Jamaica and St. Domingo. In the E. Indies Wall. Cat. mentions 6 species: 3 of *Juglans*, (Nepal, &c. Taong-Dong. Tavoy. one of them the common Walnut, and 3 of *Engelhardtia*, (Nepal, Khassya Mountains. Penang. Singapore.) All valuable timber-trees.

JUGLANS, L. (*Spreng. syst.* 3, *p.* 762, *No.* 3127.) *Walnut.*

1. *regia*, L. (*Spreng. syst.* 3, *p.* 865;—*Lam. ill. t.* 781;—*Roxb. fl. ind.* 3, *p.* 631.) অখরোট *Akurot.* ♄ Extends from Greece and Asia Minor, over Lebanon and Persia, probably all along the Hindoo Koosh to the Himalayas. Abundant in Cashmere. Sirmore. Kemaon. Nepal. Assam, and the Khassya Mountains. Introduced into H. C. G. in 1795, but had not fl. up to 1814. *Walnuts* are imported into Bengal from Cashmere, the Himalayas, the Khassya Mountains, &c.

ENGELHARDTIA, Leschen.

1. *Roxburghiana*, Lindl. (*Wall. pl. as. rar.* 2, *t.* 199.—Juglans pterococca, *Roxb. fl. ind.* 3, *p.* 631.) L. ♄ Khassya Mountains. Kamrup forests. Nepal. Tenasserim Coast, &c. Fl. minute, yellowish. In H. C. G. fr. July and Aug. *Wood* light-coloured, used by turners. *Bark* thick, dark brown, containing much tannin. (*Roxb.*)

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* *Juglans baccata*, L. Jamaica.—*J. arguta*, Wall. Taong-Dong.—*Engelhardtia Colebrookiana*, Lindl.; Wall. pl. as. rar. 3, t. 208. Nepal.—*E. Wallichiana*, Lindl. Penang. Singapore.

ORDER CXXV.—CASUARINACEÆ, (Casuaraceæ, Lindl. Nat. Syst. p. 181.)

Weeping trees, referred to a single genus, which according to Spreng. syst. contains 13 species: 10 from New Holland and the South Sea Islands; 1 from the Mascarenhas; 1 from E. Africa; and 2 from the E. Indies, one of which is also a native of the South Sea Islands. Timber excellent.

CASUARINA, L. (*Spreng. syst.* 3, *p.* 758, *No.* 3081;—*Endl. gen. pl.* 1, *p.* 271.)

1. *equisetifolia*, Forst. (*Spreng. syst.* 3, *p.* 803;—*Lam. ill. t.* 746;—*Roxb. H. B. p.* 66;—*Rumph.* 3, *t.* 57.) ♄ Islands of the Pacific Sea. Moluccas. Introduced into H. C. G. before 1814. Here it has not fl. *Wood* reddish-grey, very heavy, hard. (*Rumph.*)
2. *nodiflora*, Forst. (*Spreng. syst. l. c.*) ♄ South Sea Islands. Introduced into H. C. G. in 1810. Fl.?
3. *muricata*, Roxb. (*fl. ind.* 3, *p.* 519;—*Spreng. syst.* 3, *p.* 804;—*J. Grah. Cat. B. pl. p.* 196.—C. equisetifolia, *L. suppl.* excl. syn. Forst.) L. ♄ Coast along the Malayan Peninsula up to Chittagong. Now introduced into every part of the plains of India, where in some places it is completely domesticated, f. ex. in Lower Bengal, about Calcutta, Barrackpore, Serampore, &c. Fl. minute, greenish, Feb. and March; fr. C. S. *Wood* reddish, of a texture like Toon, but held in no estimation. (*Roxb.*)
4. *torulosa*, Ait. (*Spreng. syst. l. c.*) ♄ New Holland. Introduced into H. C. G. in 1811. Fl.?
5. *distyla*, Vent. (*Spreng. syst.* 3, *p.* 804.) ♄ New Holland. Introduced into H. C. G. in 1811. Fl.?

* *Casuarina lateriflora*, Lam. ♄ Mascarenhas Islands.

ORDER CXXVI.—DATISCACEÆ, Lindl. Nat. Syst. p. 182.

Herbs, by Lindl. referred to 3 genera: *Datisca*, L.; *Tetrameles*, R. Br.; and *Tricerastes*, Presl. The first has one species in S. Europe, Asia Minor, Iberia, Cashmere and Nepal; and another in Pennsylvania. The second is a Javanese genus. With the third we are not acquainted. Properties unimportant.

DATISCA, L. (*Spreng. syst.* 3, *p.* 895, *No.* 3191.)

1. *cannabina*, L. (*Spreng. syst.* 3, *p.* 906;—*Lam. ill. t.* 823.—D. Nepalensis, *Don.?*) 4. S. Europe. Asia Minor. Iberia. Kunawar. Cashmeer. Nepal. Has been introduced into H. C. G. Fl.?

* *Tetrameles nudiflora*, R. Br. Horsf. pl. as. rar. 1, p. 79, t. 17. L. ♄ Java.

ORDER CXXVII.—LACISTEMACEÆ, Lindl. Nat. Syst. p. 183.

Small trees or shrubs, of 1 genus, and according to Spreng. syst. 5 species, all natives of Brazil and the W. Indies Properties unknown.

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* *Lacistema serrulatum*, Mart. nov. gen. t. 95. ♄ Brazil.—*L. Berterianum*, Mart. ♄ Cuba. St. Domingo.—*L. pubescens*, Mart ; nov. gen. t. 94. ♄ Brazil.—*L. myricoïdes*, Swz. ♄ Jamaica.

ORDER CXXVIII.—CHLORANTHACEÆ, Lindl. Nat. Syst. p. 183.

Herbs or undershrubs, by Lindl. referred to 3 genera : *Ascarina*, Forst. with 1 species from the Society Islands : *Chloranthus*, Swz., with 3 from China and Japan, and 3 from the Khassya Mountains, Java, and Penang ; and *Hedyosmum*, Swz. with 5 from the W. Indies and New Granada. The roots of Chloranthus officinalis have a fragrant camphorated smell, and an aromatic, somewhat bitter flavour. There seems no doubt that it is a stimulant of the highest order. (*Lindl. from Blum. fl. Jav.*)

Chloranthus, Swz. (*Spreng. syst.* 3, *p.* 683, *No.* 3408 ;—*Endl. gen. pl.* 1, *p.* 265.)

1. *inconspicuus*, Swz. (*Spreng. syst.* 3, *p.* 750 ;—*Roxb. H. B. p.* 11.—Nigrina plicata, *Thunb.*—Creodus odorifer, *Lour.*) ♄ China. Japan. Fl. small, R. S. ; fr. 0.
2. *erectus*, Wall. (*Cat.*) ♄ Khassya Mountains. Assam. In H. C. G. Fl. ?

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* *Chloranthus monostachys*, R. Br. ; B. M. 48, t. 2190. ♄ China.—*C. brachystachys*, Bl. ♄ Penang.—*Hedyosmum nutans*, Swz. ♄ Jamaica. —*H. arborescens*, Swz. ♄ Jamaica.—*H. hirsutum*, Kth. New Granada.

ORDER CXXIX.—SAURURACEÆ, Lindl. Nat. Syst. p. 184.

Herbs, excluding Spathium and Aponogeton ? referred to 2 genera : *Houttuynia*, with one species from Japan, Nepal, the Khassya Mountains and Cochin China ; and *Saururus*, L. with 2 from N. America. Properties unknown.

Houttuynia, Thunb. (*Spreng. syst.* 1, *p.* 138, *No.* 371 ;—*Endl. gen. pl.* 1, *p.* 267.)

1. *cordata*, Thunb. (*Spreng. syst.* 1, *p.* 364 ;—*Thunb. jap. t.* 26 ;—*B. M.* 54, *p.* 2731 ;—*Roxb. fl. ind. ; ed. Carey*, 1, *p.* 360.—Polypara Cochin-

chinensis, *Lour.*) ♃. Japan. Nepal. Assam. Khassya Mountains. Cochin China. Has not fl. here. The plant, while young, is used as a potherb by the inhabitants of Nepal, as well as those of Cochin China.

ORDER CXXX.—PIPERACEÆ, Rich.—Lindl. Nat. Syst. p. 185.

THE PEPPER TRIBE.

Herbs, undershrubs or shrubs, by Lindl. referred to 4 genera. Of these, according to Spreng. syst. 188 are natives of S. America, Mexico and the W. Indies; 5 of the Mascarenhas Islands; 3 of the South Sea Islands; 1 of Guinea; and 1 of Carolina. 3-4 species have been discovered in S. Africa, (*Harvey,*) and 48 of *Piper* (Spreng; Roxb. Wall.) in the E. Indies, Moluccas, Sunda Islands, Ceylon, both Peninsulas of India, the Khassya Mountains, Assam, Nepal, Kemaon. Only a few herbaceous forms belong to the plains. Common Pepper, Cubebs and Betle are well known to every one. Piper inebrians is narcotic, and used by the South Sea islanders for preparing an intoxicating drink.

PIPER, L. (*Spreng. syst.* 1, *p.* 28, *No.* 130;—*Endl. gen. pl.* 1, *p.* 265.)

1. *Chaba,* W. Hunt. (*Roxb. fl. ind.* 1, *p.* 156; *ed. Carey,* 1, *p.* 158;—*Spreng. syst.* 1, *p.* 112.—P. Chuvya, *Roxb. H. B. p.* 4;—*Rumph.* 5, *t.* 116, *f.* 1.) চই *Chuï.* ♄ ◡ Moluccas. Singapore. Penang. Introduced into H. C. G. in 1808, but had not fl. up to 1814, nor has it fl. here during the last twelve years.
2. *nigrum,* L. (*Spreng. syst.* 1, *p.* 112;—*Roxb. fl. ind.* 1, *p.* 150; *ed. Carey,* 1, *p.* 153;—*J. Grah. Cat. B. pl. p.* 198;—*B. M.* 59, *t.* 3139;—*Rheed.* 7, *t.* 12.) গোল মরিচ *Gol-murich. Black-pepper.* ♄ ◡ Sumatra. Courtallum, &c. Introduced into H. C. G. before 1793, but had not fl. up to 1814, nor, do I think, it has ever fl. in Bengal.
3. *trioecum,* Roxb. (*fl. ind.* 1, *p.* 151; *ed. Carey,* 1, *p.* 153;—*J. Grah. Cat. B. pl. p.* 199;—*Spreng. syst.* 1, *p.* 112.) ♄ ◡ Rajamundri Circar. In abundance at Lanowlee, near Kandalla, clothing the trunks of high trees. Aments appearing R. and C. S.; fr. March.
4. *longum,* L. (*Spreng. syst.* 1, *p.* 413;—*Roxb. fl. ind.* 1, *p.* 154; *ed. Carey,* 1, *p.* 156;—*J. Grah. Cat. B. pl. p.* 199;—*Rheed.* 7, *t.* 14.) পিঁপুল *Pipool. Long-pepper.* ♄ ◡ Banks of water-courses towards the Circar Mountains. S. Concan. Banks of the Irawaddi. Bengal, (Serampore.) Silhet. Aments appearing R. S.; fr. C. S.
5. *Betle,* L. (*Spreng. syst.* 1, *p.* 413;—*Roxb. fl. ind.* 1, *p.* 158; *ed. Carey,* 1, *p.* 160;—*J. Grah. Cat. B. pl. p.* 198;—*B. M.* 59, *t.* 3132;—*Rheed.* 7, *t.* 15;—*Rumph.* 5, *t.* 116, *f.* 2;—*Burm. zeyl. t.* 82, *f.* 2,) পাণ *Pan. Betle-leaf.* ♄ ◡ or creeping. Native place unknown. Cultivated all over India. *Aments* appearing R. and C. S.

6. *sylvaticum*, Roxb. (*fl. ind.* 1, *p.* 156; *ed. Carey*, 1, *p.* 158;—*Spreng. syst.* 1, *p.* 413.) ♄ ∽ Khassya Mountains. Assam. Aments appearing, and fr. R. S.
7. *cuneifolium*, Jacq. (*icon. rar.* 2, *t.* 214;—*Spreng. syst.* 1, *p.* 115.—Peperomia cuneifolia, *Willd. en.*) ♃. Caracas. Introduced here a year ago. Has not fl. yet.
8. *reptans*, Roxb. (*H. B. p.* 4.) Moluccas. ♄ Rooting. In H. C. G. Aments appear and ripen R. and C. S. (*Roxb.*)
9. *sarmentosum*, Roxb. (*fl. ind.* 1, *p.* 160; *ed. Carey*, 1, *p.* 162;—*Spreng. syst.* 1, *p.* 117.—P. latifolium, *Hunt; As. Res.* 9, *p.* 392; not Forst.) ♄ Penang. Aments appearing, and ripening R. S.
10. *peepuloïdes*, Roxb. (*fl. ind.* 1, *p.* 157; *ed. Carey*, 1, *p.* 159;—*Spreng. syst.* 1, *p.* 117.) *Silhet Long-pepper.* ♄ Rooting. Khassya Mountains. Silhet. Introduced into H. C. G. in 1811, but had not fl. up to 1814.
11. *clusiæfolium*, Jacq. (*icon. rar.* 2, *t.* 213.—Peperomia clusiæfolia, *Hook; B. M.* 56, *t.* 2943.) ♃. W. Indies. Introduced in 1840.
12. *pereskiæfolium*, Jacq. (*collect.* 4, *p.* 126;—*Pers. syn.* 1, *p.* 34.—P. peiresciæfolium, *Spreng. syst.* 1, *p.* 119.—Peperomia pereskiæfolia, *Humb.;—Hook. exot. fl. t.* 67.) ♃. Caracas. Introduced in 1841.
13. *magnoliæfolium*, Jacq. (*coll.* 3, *p.* 210; *ic. rar.* 2, *t.* 213.) ♃.

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* *Piper Malamiri*, L. Rheed. 7, t. 16. S. Concan. Goalpara.—*P. lonchites*, Röm. and Sch. (P. lanceolatum, Roxb. not Ruiz. and Pav.) Moluccas. Penang.—*P. stenophyllum*, (P. angustifolium, Roxb. not Lam.) Moluccas.—*P. saxatile*, Wall. Nepal. Khassya Mountains.—*P. ribesioïdes*, Wall.; pl. as. rar. 1, t. 91. Chappedong.—*P. subpeltatum*, Willd. Penang. Mauritius.—*P. plantagineum*, Buch. Goalpara.—*P. colubrinum*, Lk. ♄ Brazil.—*P. nitidum*, Swz. ♄ Jamaica.—*P. acuminatum*, L.; B. M. 44, t. 1882. ♃. W. Indies.—*P. reniforme*, Poir. (Peperomia reniformis, Hook. exot. fl. t. 164.) ♄ St. Vincent.—*Laurea tiliæfolia*, Gaudich, ♄ Guiana.—*Ottonia Anisum*, Spreng. ♄ Brazil.

ORDER CXXXI.—SALICACEÆ, Lindl. Nat. Syst. p. 186.

THE WILLOW TRIBE.

Trees or shrubs, of 2 genera: *Salix* and *Populus*. Of these, Spreng. syst. enumerates 75 species from Europe; 36 from N. America; 6 from S. America and Mexico; 3 from Dahuria; 1 from Iberia; 1 from Spitzbergen; 1 from Siberia; 1 from Melville Island; 1 from Japan; 1 from Patagonia; and 1 from Egypt. In the eastern and northern districts of S. Africa have been found several species of Salix. That of the Gariep (S.

Gariepina, Burch,) is, according to Burchell, one of the greatest ornaments of the noble river whose name it bears, (*Harvey.*) The E. Indies present, according to Wall. Cat. and Royle. ill. 2 species of *Populus*, (Himalayas); and 15 of *Salix;* 2 from Oude; 3 from the Peninsula of India; 1 from Lower Bengal; and the rest from the Himalayas.

The willows and poplars are valuable trees for their timber, or for economical purposes.

SALIX, L. (*Spreng. syst.* 1, *p.* 28, *No.* 129;—*Endl. gen. pl.* 1, *p.* 290.) *Willow.*

1. *babylonica*, L. (*Spreng. syst.* 1, *p.* 99;—*Roxb. fl. ind.* 3, *p.* 754;—*J. Grah. Cat. B. pl. p.* 195.) *Weeping Willow.* ♄ Greece. Asia Minor. Nepal. Cultivated in gardens. Fl. March.
2. *tetrasperma*, Roxb. (*Corom.* 1, *t.* 97;—*fl. ind.* 3, *p.* 753;—*Spreng. syst.* 1, *p.* 100;—*J. Grah. Cat. B. pl. p.* 195.) পানী জমা *Panee-juma.* ♄ Kheree Pass, along the foot of the Mountains, and in other hot parts of India, as Bengal and the Peninsula. In the Presidency of Bombay, the vale of Yena, and other moist places, Mahableshwur; various places of the Southern Mahratta Country. Fl. H. and R. S.

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* *Salix glabrescens*, Lindl. Oude. Rohilcund.—*S. urophylla*, Lindl. Oude.—*S. Bonplandiana*, Humb. Mexico.—*S. ægyptiaca*, L. Egypt. —*S. paradoxa*, Humb. Mexico.—*Populus græca*, Ait. Greece.

ORDER CXXXII.—PLATANACEÆ, Lindl. Nat. Syst. p. 187.

Trees or shrubs of one genus, of which Spreng. syst. enumerates 4 species: 1 from Europe and Asia Minor; 2 from Asia Minor; and 1 from N. America. Wood very valuable.

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* *Platanus orientalis*, L. ♄ S. Europe. Asia Minor. Caucasus. Cashmere.

ORDER CXXXIII.—BALSAMACEÆ, Lindl. Nat. Syst. p. 188.

BALSAMIFLUÆ, BL.

Tall trees yielding balsam, (*Bl.*) contained in one genus, *Liquidambar*, of which Spreng. syst. enumerates 2 species, one from the warmer parts of N. America; the other from the neighbourhood of Smyrna. A third *Liquidambar cerasifolia*, Griff. (Sedgwickia cerasifolia Wall. et Griff.) is found in the E. Himalayas and Assam. "The fragrant resin Storax is yielded by several species of Liquidambar." (*Lindl.*)

ORDER CXXXIV.—MONIMIACEÆ, Lindl. Nat. Syst. p. 188.

Aromatic trees or shrubs, by Lindl. referred to 6 genera, of which Spreng. syst. enumerates 3 species from Madagascar and the Mascarenhas Islands; and 6 from S. America.

"All the parts of the bark and leaves exhale an aromatic odour, which is compared by travellers to that of Laurels or Myrtles. (*DC.*) Ruizia, the *Boldu* of Chili produces a succulent fruit which is eaten by the natives. Both the wood and leaves are very fragrant; the former makes a kind of charcoal, which is preferred beyond all other kinds by smiths. (*Bridges.*)" (*Lindl.*)

AMBORA, Juss. (*Endl. gen. pl.* 1, *p.* 313.)

1. *Tambourissa*, Lam. (*ill. t.* 784.—Mithridatea quadrifida, *Willd.*—*Roxb. H. B. p.* 2.) ♄ Madagascar. Mascarenhas Islands. Introduced into H. C. G. in 1810, but had not fl. up to 1814.

* *Monimia rotundifolia*, Pet. Th. Mascarenhas Islands.—*M. ovalifolia*, Pet. Th. Mascarenhas Islands.

ORDER CXXXV.—ATHEROSPERMACEÆ, Lindl. Nat. Syst. p. 189.

Trees, referred by Lindl. to 3 genera: *Atherosperma*, Labill. with 1 species from N. Holland; *Laurelia*, Juss. with 1 from Chili; and *Citrosma*, Ruiz. and Pav., of which Spreng. syst. enumerates 18 species from S. America. Aromatic plants.

* *Atherosperma moschata*, Lindl. ♄ New Holland.

ORDER CXXXVI.—PODOSTEMACEÆ, Lindl. Nat. Syst. p. 190.

Herbaceous floating plants, referred by Lindl. to 8 genera, of which Spreng. syst. enumerates 5 species from S. America; 1 from N. America; 2 from Madagascar; and 1 from Etruria, Chili and N. America; 2 species of *Podostemon*, (Wallichii R. Br. et Griffithii, Wall.) have been found on the Khassya Mountains.

* *Mniopsis scaturiginum*, Mart. Brazil.

ORDER CXXXVII.—CALLITRICHACEÆ, Lindl. Nat. Syst. p. 191.

Small annual aquatic herbs of 1 genus, containing, according to DC. 4 species from Europe and N. America. One species has been found on the Neelgherries. Properties unknown.

* *Callitriche verna*, L.; E. B. 11, t. 722. ☉ Europe.

ORDER CXXXVIII.—SANTALACEÆ, R. Br.—Lindl. Nat. Syst. p. 193.

THE SANDERS-WOOD TRIBE.

Herbs, shrubs or trees, referred to 18-20 genera. Of these Spreng. syst. enumerates 21 species for New Holland; 9 for Europe; 8 for N. America; 2-4 for Chili and Peru; 1 for Patagonia; and 1 for Japan. In S. Africa have been found 40 species, (*Harvey*,) and in the E. Indies, according to our materials, 10; viz. 1-2 of Thesium, (Peninsula, Himalayas); 1-2 of Santalum; 2 of Osyris, (Nepal, Peninsula); 1-2 of Sphærocarya, (Nepal, Khassya Mountains); 1 of Scleropyrum, (Malabar); and 1 of Octarillum. (Lour.) Properties under Santalum album.

SANTALUM, L. (*Spreng. syst.* 1, *p.* 373, *No.* 538.)

1. *album*, L. (*Roxb. fl. ind.* 1, *p.* 442; *ed. Carey*, 1, *p.* 462;—*J. Grah. Cat. B. pl. p.* 177;—*B. M.* 60, *t.* 3235;—*Buch. journ. Mysore*, 1, *p.* 186 *and* 202—2, *p.* 117 *and* 132—3, *p.* 192;—*W. Griffith. On the ovulum of Santalum album, in Linn. soc. trans.* 18 *vol. page* 59-71.—Sandalum album, *Rumph.* 2, *t.* 11.) চন্দন *Chundun. Sandal-Wood.* ♄ China. Cochin China. Both Peninsulas of India, Assam. Fl. small, first straw-coloured, afterwards deep ferrugineous-purple, inodorous, and fr. nearly the whole year. Yields the Sandal-wood of commerce, which is usually cut into billets, and disposed of in that state. It is burnt to perfume temples and dwelling houses, both in China and India. Reduced to powder, it enters into a composition for marking the forehead. (*J. Grah. l. c.*)

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* *Osyris nepalensis*, Don. (O. arborea, Wall. Cat.) Nepal. Sirmore. Hurdwar.—*O. Wightiana*, J. Grah. Kandalla. Mahableshwur.—*Sphærocarya edulis*, Wall.; Wight. icon. 1, t. 255. Nepal.—*Scleropyrum Wallichianum*, Arn. Wight. icon. 1, t. 241.

ORDER CXXXIX.—ELÆAGNACEÆ, Lindl. Nat. Syst. p. 194.

THE OLEASTER TRIBE.

Trees or shrubs, by Lindl. referred to 4 genera, of which Spreng. syst. assigns 5 species to Japan; 3 to N. America; and 2 to Europe, Asia Minor, Tauria and Egypt. In the E. Indies have, according to Roxb. Wall. Cat. and Royle. ill. been discovered 8 species of *Elæagnus*, (Himalayas, Khassya Mountains, Garrow Hills, Ludak, Neelgherries, Travancore, Ceylon, Sumatra, Java, (one also a native of Japan,) and *Hippophaë conferta*, Wall. a native of the Himalayas. Properties unimportant.

ELÆAGNUS, L. (*Spreng. syst.* 1, *p.* 373, *No.* 535.)

1. *triflora,* Roxb. (*fl. ind.* 1, *p.* 439 ; *ed. Carey,* 1, *p.* 459 ;—*Spreng. syst.* 1, *p.* 489 ;—*Burm. fl. zeyl. t.* 39, *f.* 1.) ♄ ◡ Ceylon. Sumatra. Fl. small, white, C. S. ; fr. H. S.
2. *conferta,* Roxb. (*fl. ind.* 1, *p.* 440 ; *ed. Carey,* 1, *p.* 450 ;—*Spreng. syst.* 1, *p.* 489 ;—*J. Grah. Cat. B. pl. p.* 178.) ♄ ◡ Kandalla. Mahableshwur. Along the Ghauts. S. Concan. Cochin. Prome. Segaen. Khassya Mountains. Nepal. Fl. small, straw-coloured, C. S. ; fr. March. *Fruit* eaten by the natives, of an agreeable flavour. (*J. Grah. l. c.*)
3. *dulcis,* Roxb. (*H. B. p.* 11 ;—*J. Grah. Cat. B. pl. p.* 178.—E. arborea, *Roxb. fl. ind.* 1, *p.* 441 ?; *ed. Carey,* 1, *p.* 461 ;—*Spreng. syst.* 1. *p.* 489 ?) L. ♄ Silhet. Has not fl. here.
4. *parvifolia,* Wall. (*Royl. ill. p.* 323, *t.* 81, *f.* 1.) Nepal. Sirmore. Kemaon. ♄ fl. small, white. In H. C. G. Fl.
5. *ferruginea,* Rich. (*Spreng. l. c.*) ♄ Java. Neelgherries. Has not fl. here.

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* *Elæagnus latifolia,* L. Ceylon. Travancore.

ORDER CXL. THYMELACEÆ, Lindl. Nat. Syst. p. 194.

THE MEZEREUM TRIBE.

Shrubs, seldom herbs, by Lindl. referred to 22 genera. Of these Spreng. syst. enumerates for New Holland and the South Sea Islands 46 species ; for Europe 22 ; for S. America, Mexico and the W. Indies 9 ; for China 3 ; for Japan 1 ; for Siberia 2 ; for Caucasus 2 ; for Persia 1 ; for N. Africa 2, exclusive of those common with Europe ; for the Levant 2, exclusive of those common with Europe ; for N. America 1 ; and for the Straits of Magellan 1. In S. Africa have been discovered 80 species, (*Harvey,*) and in the E. Indies, according to Wall. Cat. and Royl. ill. 17, viz. 14 of *Daphne,* (Nepal, Khassya Mountains, Darjeeling, South Mahratta Country,) 1 of *Linostoma,* (Khassya Mountains), and 2 of *Cansjera,* (Malabar, Amherst,) to these Spreng. adds *Dais octandra,* L. with which we are not acquainted. For China Wall. Cat. has a new species, Daphne viridiflora.

A caustic, skin-blistering, tenacious bark characterises the order. A soft, smooth and tough paper is manufactured in Cochin China and Nepal from the inner bark of Daphne cannabina, Lour. The lace bark-tree of Jamaica is of this family.

DAPHNE, L. (*Spreng. syst.* 2, *p.* 174, *No.* 1477.)

1. *viridiflora,* Wall. (*Cat.*) ♄ China. Fl. small, pale green and fr. the whole year.

2. *indica*, L. (*Pers. syn.* 1, *p.* 435 ;—*Spreng. syst.* 2, *p.* 236.) ♄ China. New Holland. Has been introduced into H. C. G. Fl.?

LINOSTOMA, Wall. (*Cat.*)

1. *decandrum*, Wall. (*Cat.*—Nectandra decandra, *Roxb. fl. ind.* 2, *p.* 425.) L. ♄ Silhet. Fl. largish, greenish-white, fragrant. In H. C. G. Fl.?

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* *Daphne mexicana*, Spreng. Mexico.—*D. tinifolia*, Swz. Jamaica.—*D. occidentalis*, Swz. Jamaica.—*D. involucrata*, Wall. Khassya Mountains.—*D. eriocephala*, Wall. Neelgherries. Hilly parts of S. Mahratta Country. Mahableshwur.—*Cansjera Rheedii*, Gmel. (C. scandens, Roxb. Corom. 2, t. 103.) ♄ ◡ Malabar Hill, Bombay. Elephanta. Salsette. The Ghauts. Circars.—*Lagetta lintearia*, Juss. (Lace-bark-tree.) ♄ Jamaica.

ORDER CXLI.—HERNANDIACEÆ, Lindl. Nat. Syst. p. 195.

Trees of 2 genera and 4 species: 3 from Moluccas and South Sea Islands and 1 from Guiana. Properties under the species.

HERNANDIA, L. (*Spreng. syst.* 3, *p.* 759, *No.* 3097.)

1. *ovigera*, L. (*Spreng. syst.* 3, *p.* 835. excl. syn. Aubl. and Lam.;—*Gärtn. fr.* 1, *p.* 193, *t.* 40. *f.* 3 ;—*Roxb. fl. ind.* 3, *p.* 577.—Arbor ovigera, *Rumph.* 3, *t.* 123, as to flowers and fruit.) ♄ Moluccas. Fl. small, white, Aug. Sept. and Oct.; fr. H. S.

INOCARPUS, Forst. (*Spreng. syst.* 2, *p.* 274, *No.* 1538)

1. *edulis*, Forst. (*Spreng. syst.* 2, *p.* 285 ;—*Roxb. fl. ind.* 2, *p.* 416 ;—*J. Grah. Cat. B. pl. p.* 106 ;—*Rumph.* 1, *t.* 65.) *Otaheyte Chestnut-tree.* L. ♄ Society and Friendly Islands. New Hebrides. Amboyna. Java. Fl. small, very pale yellow, fragrant, H. S.; fr. Aug. and Sept. *Kernels* edible, but by no means pleasant to the taste. *Bark* astringent, used in dysentery. The inhabitants of New Guinea smear the heads of their arrows with the expressed resinous juice.

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* *Hernandia sonora*, L. (Rumph. 2, t. 85.) ♄ Moluccas.—*H. guianensis*, Aubl. ♄ Guiana.

ORDER CXLII.—AQUILARIACEÆ, Lindl. Nat. Syst. p. 196.

THE AGALLOCHUM TRIBE.

Trees containing the following 2 genera and 4 species.

AQUILARIA, Lam. (*Spreng. syst.* 2, *p.* 281, *No.* 1669 ;—*Arn.* in *Lind. Nat. Syst. p.* 442, *No.* 24.)

1. *Agallocha*, Roxb. (*fl. ind.* 2, *p.* 422 ;—*DC. pr.* 2, *p.* 59 ;—*Royle ill. t.* 36, *f.* 1.) অগুর *Ugoor. Agallochum. Aloe's wood. Agila wood. Eagle*

wood. L. ♄ Mountainous tracts E. and S. E. of Silhet. Fl. small, green, March and April; fr. R. S. Contains a fragrant resinous substance of a dark colour. It is considered a cordial by some Asiatic nations, and has been prescribed in Europe in gout and rheumatism. (*Ainslie.*)

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* *Aquilaria malaccensis,* Lam. ♄ Malacca.—*A. sinensis,* Spreng. L. ♄ China.—*Gyrinops Walla,* Gärtn. ♄ Ceylon.

ORDER CXLIII.—PROTEACEÆ, Juss.—Lindl. Nat. Syst. p. 197.

Shrubs or trees, by Lindl. referred to 42 or 43 genera. Of these, Spreng. syst. enumerates 219 species for New Holland and the South Islands; 20 for S. America; 1 for Abyssinia; and 1 for the Straits of Magellan. In S. Africa have been found 200 species (*Harvey,*); and in the E. Indies, according to Bennett 11 of *Helicia,* (Khassya Mountains, Java, Singapore, Penang, Tavoy, Martaban.) To these may, perhaps, be added *Cylindria rubra,* Lour. (Cochin China.)

" Of no known use, except as fire wood, for which they are commonly employed at C. G. H. The fruit of Guevina Asellana, Mol. is sold like nuts in the markets of Chili." (*Lindl.*) At least 2 of the Indian species, Helicia robusta and excelsa, R. Br. are large timber trees.

GUEVINA, Molin.

1. *Avellana,* Mol. (*Spreng. syst.* 1, 472.) ♄ *Chili.* 1840.

GREVILLEA, R. Br.

1. *robusta,* Cunningh. ♄ B. M. 59, 3184. New Holland.

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* *Helicia excelsa,* R. Br. L. 5 Chittagong. Coast of Martaban.—*H. attenuata,* R. Br. Penang. Khassya Mountains.—*H. glabrata,* R. Br. Tavoy.—*H. robusta,* Wall. Khassya Mountains.—*Rhopala sessilifolia,* Rich. Guiana.—*R. nitida,* Rudg. Guiana.

ORDER CXLIV.—LAURACEÆ, Lindl. Nat. Syst. p. 200.

THE CINNAMON TRIBE.

Trees, often of great size, seldom shrubs, by Lindl. referred to 45 or perhaps 46 genera. Of these, Spreng. syst. enumerates about 50 for S. America, Mexico, and the W. Indies; 12 for N. America; 7 for Japan; 7 for China, including those of Nees; 7 of New Holland; 3 of the Canaries; 2 of Madagascar; 1 of Mauritius; and 1 of S. Europe. In S. Africa has

been found only one species, *Laurus bullata*, a tall forest tree, whose fine grained, dark coloured wood is much used in cabinet work, under the unpromising name of 'Stinkwood,' so called from the offensive smell of the fresh sawn timber. When made into furniture, the better specimens have much the appearance of Rose-wood, and take a fine polish, (*Harvey.*) In the E. Indies alone, according to Nees, (Systema Laurinarum) we find 86 species: viz. 2 of *Polyadenia;* 6 of *Daphnidium;* 1 of *Benzoin;* 1 of *Dodecadenia;* 6 of *Litsæa;* 25 of *Tetranthera;* 1 of *Cylicodaphne;* 1 of *Actinodaphne;* 1 of *Endiandra;* 2 of *Cryptocarya;* 2 of *Beilschmiedia;* 1 of *Cecidodaphne;* 4 of *Machilus;* 8 of *Ocotea;* 3 of *Alseodaphne;* 2 of *Camphora;* and 20 of *Cinnamomum.* The greater part of these inhabit Nepal, the Khassya Mountains, Assam, the Circars, the Neelgherries, the Peninsula of Malacca with the adjacent Islands, the Moluccas, and Java. But few species have been found in the plains. Cinnamon, Camphor, Sassafras, Benzoin, the Avocado Pear, and Laurel-leaves are the most important products of this order, and are too well known to require details.

CINNAMOMUM, Burm. (*Nees. in Wall. pl. as. rar.* 2, *p.* 73.)

1. *obtusifolium*, Nees. (*l. c.*—Laurus obtusifolia, *Roxb. fl. ind.* 2, *p.* 302. L. Bejolgota, *Buch. trans. Linn. Soc.* 13, 2. *p.* 559; excl. Laurus malabathrica, Roxb.) L. ♄ Mountainous countries immediately east of Bengal. Fl. small, greenish-yellow, Jan. and Feb.; fr. July and Aug. *Timber* very useful for various purposes. (*Roxb.*)
2. *iners*, Reinw. (*Nees. l. c.—Wight. icon.* 1, *t.* 122, *et t.* 130;—*J. Grah. Cat. B. pl. p.* 173.—*Rheed.* 1, *t.* 57.) *Wild Cinnamon.* L. ♄ Along the great range of the Ghauts, and in the hilly parts of the Concans and Malabar. Java. Penang. Moulmein. Attran. Chappedong. Fl. small, greenish-yellow, C. S. The *leaves* on being bruised have a strong spicy smell. Billets of this tree are often sold together with other kinds of firewood, by the wood-cutters. (*Nimmo.*) In H. C. G. ? Fl. ?
3. *eucalyptoïdes*, Nees. (*l. c.*—Laurus malabathrica, *Soland MSS.;*—*Roxb. fl. ind.* 2, *p.* 297.) ♄ Malabar Mountains. Introduced into H. C. G. before 1794, but had not fl. up to 1814. It must, however, have fl. afterwards, since the dried specimens, examined by Prof. Nees. v. Essenbeck, had been gathered there. The *leaves* have a strong, acrid, clove-like taste and odour, somewhat tinctured with camphor. (*Nees.*)
4. *nitidum*, Nees. (*l. c.;—Hook. exot. fl. t.* 176, excl. syn. Cinnamomum Cassia, Nees, Disput.—*Wight. icon.* 1, *t.* 124.—Laurus nitida, *Roxb. fl. ind.* 2, *p.* 300.) ♄ Sumatra. Fl. small, pale yellowish, Feb. and March; fr. May and June. Taste and odour of the *bark* cinnamon-like. (*Nees.*)
5. *zeylanicum*, Nees. (*l. c. p.* 74.) ♄ Ceylon. Fl. small, greenish-white, Jan. and Feb.; fr. May and June.—*True Cinnamon-tree.* দারচিনি গাছ *Dalchini-gachh.*

β. *latifolium*, Roxb. (*H. B. p.* 30.—C. zeylanicum, *Wight. icon.* 1, *t.* 123.)

γ. *angustifolium*, Roxb. (*l. c.*—*Wight. icon.* 1, *t.* 128.—Laurus Cassia, *B. M.* 40, *t.* 1636.—Cinnamomum perpetue florens, *Burm. zeyl. p.* 63, *t.* 28.—*Rheed.* 1, *t.* 57.)

6. *albiflorum*, Nees. (*o. c. p.* 75.—*Wight. icon.* 1, *t.* 140.—C. camphoratum, *Bl.*—Laurus Cassia, *Roxb. fl. ind.* 2, *p.* 297. excl. syn. Willd. and Rheed.) ♄ Nepal. Tipperah. Fl. small, white, Feb. March and April; fr. June and July. *Bark* smelling and tasting strongly of camphor and cinnamon.

7. *dulce*, Nees. (*l. c.*—C. chinense, *Bl.*—Laurus dulcis, *Roxb. fl. ind.* 2, *p.* 303;—*Wight. icon.* 1, *t.* 138.) ♄ China. Fl. small, pale yellowish, March and April; fr. R. S.—*Leaves* and *bark* of a sweet aromatic taste and odour. (*Roxb.*)

8. *Culitlawan*, Nees. (*l. c.*—*Wight. icon.* 1, *t.* 137.—Laurus Culitlawan, *Roxb. fl. ind.* 3, *p.* 299;—Laurus Caryophyllus, *Lour.*—Cortex caryophylloïdes, *Rumph.* 2, *t.* 14.) ♄ Moluccas. Cochin China. Fl. small, white, inodorous. In H. C. G. fl. March and April. (*Roxb.*) *Bark* smelling like a mixture of sassafras and cloves, yielding by distillation an essential oil which the inhabitants of Amboyna esteem an excellent remedy in retention of urine, when given in a dose of six drops twice a day. (*Roxb.*)

9. ? *recurvatum*, Wight. (*icon.* 1, *t.* 133.—Laurus recurvata, *Roxb. fl. ind.* 2, *p.* 301.) ♄ China. In H. C. G. fl. April and May. (*Roxb.*)

10. *caudatum*, Nees. (*o. c. p.* 76.) ♄ Nepal. Has not fl. here.

Camphora, Nees, (*Wall. pl. as. rar.* 2, *p.* 72.)

1. *officinarum*, Bauh. (*Nees. l. c.*—Laurus Camphora, *L.; B. M.* 53, *t.* 2658.—L. camphorifera, *Kämf. amoen. t.* 771;—*Roxb. fl. ind.* 2, *p.* 304.) কর্পূর *Kurpoor. Officinal Camphor-tree.* ♄ China. Japan. Fl. small, pale greenish-yellow, March and April.

2. *glandulifera*, Nees. (*l. c.*—Laurus glandulifera, *Wall.; trans. med. and phys. soc. Calcutta*, 1, *p.* 45, *with a plate.*) L. ♄ Nepal Mountains. Fl. small, odoriferous, yellowish-greenish. Has not fl. here. *Wood* pale yellow, very light, possessing little strength, while fresh strongly smelling of camphor, unfit for furniture. (*Wall.*)

3. *porrecta*, (C. Parthenoxylon, *Nees. l. c.*—Laurus Parthenoxylon, *Jack. mal. misc.* 1, *p.* 28.—L. porrecta, *H. B. p.* 30;—*Roxb. fl. ind.* 2, *p.* 308.—L. Pseudo-sassafras, *Bl.*) L. ♄ Penang. Sumatra. Java. Fl. small, pale yellow. In H. C. G. fl. C. S.; fr. May. (*Roxb.*) *Wood* strong and durable, if not exposed to wet. (*Jack.*)

Ocotea, Aubl. (*Nees. o. c. p.* 70.)

1. *glaucescens*, Nees. (*o. c. p.* 71.—Laurus glaucescens, *Roxb. fl. ind.* 2, *p.* 307.—L. sylvestris. *Bks. Herb.*) L. ♄ Silhet. Northern Circars. Fl. small, greenish-yellowish, Feb. March and April; fr. May and June. *Timber* used by the natives for many economical purposes. (*Roxb.*)

2. *lanceolaria*, (O. lanceolata, Nees. *l. c.*—Laurus lanceolaria, *Roxb. fl. ind.* 2, *p.* 309.) ♄ Khassya Mountains. Nepal. Fl. small, pale yellowish, Feb. March and April; fr. May and June. *Wood* employed by the natives for many useful purposes. (*Roxb.*)

3. *mollis*, Wall. ♄ Burma.

Persea, Gärtn. (*Nees. in Wall. pl. as. rar.* 3, *p.* 32.)

1. *gratissima*, Gärtn. (*Nees. l. c.*—*Gärtn. fil. fr.* 3, *p.* 222;—*Bl. Bijd. p.* 567;—*J. Grah. Cat. B. pl. p.* 174;—*B. Reg.* 15, *t.* 1258.—Laurus Persea, *Jacq. obs. fasc.* 1, *p.* 37;—*Roxb. H. B. p.* 30.) *Avocado*, and *Subaltern's butter-tree* of the W. Indies. *Alligator pear.* ♄ Tropical America. Cultivated in India. Fl. small, pale-greenish, Feb. and March; fr. July and August.

Beilschmiedia, Nees. (*Wall. pl. as. rar.* 2, *p.* 69.)

1. *Roxburghiana*, Nees. (*l. c.*—Laurus bilocularis, *Roxb. fl. ind.* 2, *p.* 311.) ♄ Tipperah. Fl. small, yellow, March and April; fr. June.

Agathophyllum, Juss. (*Spreng. syst.* 2, *p.* 444;—*Endl. gen. pl.* 1, *p.* 318.)

1. *aromaticum*, Willd. (*Spreng. syst.* 2, *p.* 460;—*Roxb. H. B. p.* 36.—Ravensara aromatica, *Sonner. it.* 2, *t.* 127.—Evodia Ravensara, *Gärtn. fr.* 2, *p.* 101, *t.* 103, *f.* 2.) L. ♄ Madagascar. Introduced into H. C. G. in 1802, but had not fl. up to 1814.

Cryptocarya, R. Br. (*Nees. in Wall. pl. as. rar.* 2, *p.* 69.)

1. *floribunda*, Nees. (*l. c.*) ♄ Silhet. Has been introduced into H. C. G. Fl.?

Sassafras, Nees. (*Wall. pl. as rar.* 2, *p.* 68.)

1. *officinarum*, (Laurus Sassafras, *L.*;—*Pers. syn.* 1, *p.* 450;—*Roxb. H. B. p.* 30;—*Catesb. car.* 1, *p.* 55, *t.* 55.—Persea Sassafras, *Spreng. syst.* 2, *p.* 270.) ♄ N. America. Introduced into H. C. G. in 1809, but had not fl. in 1814. Produces the bark and root in commerce called Sassafras.

Benzoin, Nees. (*Wall. pl. as. rar.* 2, *p.* 63.)

1. *odoriferum*, Nees. (*l. c.*—Laurus Benzoin, *L.*; *Pers. syn.* 1, *p.* 450; —*Commel. hort.* 1, *p.* 189, *t.* 27;—*Roxb. H. B. p.* 30;—*Spreng. syst.* 2, *p.* 265.) ♄ N. America. Introduced into H. C. G. before 1814. Fl.?

Tetranthera, Jacq. (*Nees. in Wall. pl. as. rar.* 2, *p.* 64.)

1. *lanceæfolia*, Roxb. (*fl. ind.* 3, *p.* 822;—*Nees. o. c. p.* 65.) ♄ Silhet. In H. C. G. fl. Feb. March and April; fr. R. S. (*Roxb.*)

2. *Roxburghii*, Nees. (*l. c.*—Litsæa sebifera, *Pers. syn.* 2, *p.* 4.—Tomex sebifera, *Willd.*—Laurus involucrata, *Retz.*—Tetranthera apetala, *Gärtn. fr.* 3, *p.* 225, *t.* 222, *f.* 2.)

   a. T. apetala, Roxb. (*Corom.* 2, *p.* 147;—*fl. ind.* 3, *p.* 819 excl. syn. Lour.—Litsæa apetala, *Pers. syn.* 2, *p.* 4.—Tetranthera citrifolia, *Juss.*;—*Spreng. syst.* 2, *p.* 266.) কুকুর চিতা *Kookoor-chita.* ♄ Peninsula of India. Bengal, (Serampore.) Assam. Tropical

New Holland. Fl. small, greenish-yellowish, May and June; fr. R. S.

3. *laurifolia*, Jacq. (*Hort. schönb.* 1, *t.* 113;—*Nees. o. c. p.* 66;—*Spreng. syst.* 2, *p.* 66. excl. syn. Lour.—*Roxb. fl. ind.* 3, *p.* 823;—*B. Reg.* 11, *t.* 893.—Tomex Tetranthera, *Willd.*—Litsæa Tetranthera, *Pers. syn.* 2, *p.* 4.) ♄ China. Bengal, (Serampore.) Fl. small, yellowish-greenish, May and June; fr. at the end of the rains.
4. *monopetala*, Roxb. (*fl. ind.* 3, *p.* 821;—*Corom.* 2, *t.* 148;—*Nees. l. c.*) বড় কুকুর চিতা *Buro-Kookoor-chita.* ♄ Peninsula of India. Bengal, (Serampore.) Oude. Assam. Silhet. Nepal. Fl. small, yellowish-greenish, May and June; fr. R. S.
5. *glauca*, Wall. (*Nees. l. c.*) ♄ Khassya Hills, 1823. In H. C. G. Fl.?
6. *nitida*, Roxb. (*fl. ind.* 3, *p.* 818;—*Nees. o. c. p.* 67.) ♄ Assam. Garrow-hills. Fl. small, greenish-yellowish, July and Aug.; fr. April. A useful timber tree, from which are made canoes full fifty feet long. (*Roxb.*)
7. *macrophylla*, Roxb. (*fl. ind.* 3, *p.* 822.) ♄ Silhet. In H. C. G. fl. April; fr. Aug. (*Roxb.*)
8. *quadriflora*, Roxb. (*fl. ind.* 3, *p.* 821.) ♄ Garrow-hills. In H. C. G. fl. Feb. and March; fr. R. S. (*Roxb.*)
9. *fruticosa*, Roxb. (*fl. ind.* 3, *p.* 823.) ♄ Silhet. In H. C. G. fl. June and July; fr. C. S. (*Roxb.*)
10. *glabra*, Roxb. (*H. B. p.* 73.) ♄ Coromandel. In H. C. G. fl. H. S.; fr. R. S. (*Roxb.*)
11. *foliosa*, Wall. (*Cat.*—Tetradenia foliosa, *Nees.* ♄ Silhet Has not fl. here yet.

Laurus, Plin. (*Nees in Wall. pl. as. rar.* 2, *p.* 62.)

1. *nobilis*, L. (*Spreng. syst.* 2, *p.* 65;—*Nees l. c.*;—*Blacw. t.* 175;—*Plenck. t.* 315;—*Roxb. H. B. p.* 30.) *Sweet Bay.* ♄ S. Europe. Levant. Introduced into H. C. G. in 1794, but had not fl. up to 1814.

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* *Cinnamomum aromaticum*, Nees; Wight. icon. 1, t. 136. China in gardens.—*C. pauciflorum*, Nees. ♄ Silhet.—*C. ovalifolium*, Wight. icon. 1, t. 125. Ceylon.—*C. villosum*, Wight. icon. 1, t. 127. Ceylon.—*C. multiflorum*, Wight. icon. 1, t. 126. β. Ceylon.—*C. multiflorum*, Wight. icon. 1, t. 131. α. Ceylon.—*C. dubium*, Nees; Wight. icon. 1, t. 135. Ceylon.—*Ocotea sericea*, Nees. ♄ Nepal.—*O. attenuata*, Nees. ♄ Khassya Mountains.—*O. paniculata*, Nees. ♄ Nepal.—*O. pubescens*, Nees. ♄ Nepal.—*O. pallida*, Nees. ♄ Nepal.—*O. ligustrina*, Nees. Singapore.—*Machilus odoratissimus*, Nees. (Rumph. 3, t. 42.) L. ♄ Nepal. Assam. Singapore. Cochin China. Amboyna.—*M. macranthus*, Nees. Neelgherry.—*M. peduncularis*, Nees. ♄ Penang.—*Hufelandia pendula*, Nees. ♄ W. Indies.—*Cecidodaphne glaucescens*, Nees. ♄ Silhet.—*Cryptocarya amygdalina*, Nees. ♄ Patgong.—*Mes-*

pilodaphne Canelilla, Nees. ♄ Brazil.—*Aydendron Pichurim*, Nees. ♄ Tropical America.—*Acrodiclidium triandrum*, Nees. ♄ Tropical America.—*Misantheca* Capitata, Schlecht. ♄ Mexico.—*Cylicodaphne Wightiana*, Nees. ♄ Neelgherry.—*Persea grandis*, Nees. Tavoy.—*Tetranthera angustifolia*, Nees. ♄ Goalpara.—*T. attenuata*, Wall. Silhet.—*T. saligna*, Nees. Silhet.—*T. polyantha*, Wall. ♅ Silhet.—*T. læta*, Wall. ♄ Silhet.—*T. oblonga*, Wall. ♄ Nepal.—*T. myristicæfolia*, Wall. Penang.—*T. Panamanja*, Buch. ♅ Goalpara.—*Litsæa umbrosa*, ♄ Khassya Mountains.—*L. furfuracea*, ♄ Penang. Singapore.—*L. zeylanica*, Nees. Wight. icon. 1, t. 132. Ceylon.—*L. consimilis*, Nees. Kemaon.—*L. lanuginosa*, Nees. ♄ Nepal.—*Dodecadenia grandiflora*, Nees. ♄ Nepal.—*Daphnidium melastomaceum*, Nees. Khassya Mountains.—*D. caudatum*, Nees. Khassya Mountains.—*D. pulcherrimum*, Nees. ♄ Nepal.—*Polyadenia reticulata*, Nees. ♄ Goalpara.—*P. grandis*, Nees. ♄ Penang.

ORDER CXLV.—ILLIGERACEÆ, Lindl. Nat. Syst. p. 202.

Trees or shrubs, referred by Lindl. to 2 genera: *Illigera*, Bl. and *Gyrocarpus*, Jacq. with the first we are unacquainted. The second has 1 species in S. America; 1 in the E. Indies; and 2 in New Holland. Properties nearly unknown.

Gyrocarpus, Jacq. (*Nees. in Wall. pl. as. rar.* 2, *p.* 68.)

1. *asiaticus*, Willd. (*Nees. l. c.*—Gyrocarpus Jacquini, *Roxb. Corom.* 1, *t.* 1;—*fl. ind.* 1, *p.* 445; *ed. Carey.* 1, *p.* 465;—*Spreng. syst.* 1, *p.* 489;—*Pers. syn.* 1, *p.* 145, excl. syn.—G. americanus;—*J. Grah. Cat. B. pl. p.* 250.) ♄ Coromandel Mountains. Banks of the Krishna, near Nalutwar. Fl. very small, greenish-yellowish, C. S. *Wood* white, very light, when procurable, used in preference to others to make Catamarans. (*Roxb.*)

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* *G. americanus*, Jacq. ♄ New Granada.—*G. sphenopterus*, R. Br. Endl. ichnogn, t. 43. ♄ Tropical N. Holland.—*G. rugosus*, R. Br. ♄ Tropical New Holland.

ORDER CXLVI.—CASSYTHACEÆ, Lindl. Nat. Syst. p. 202.

Parasitical, leafless, twining herbs or undershrubs, of one genus and six species; 4 from New Holland; 1 from St. Vincent; and 1 from the E. Indies. Properties unknown.

CASSYTA, L. (*Nees. in Wall. pl. as. rar.* 2, *p.* 69.)

1. *filiformis*, L. (*Nees. l. c.*;—*Pers. syn.* 1, *p.* 450;—*Bl. bidjr. p.* 574;—*Spreng. syst.* 2, *p.* 271, *ex. pte.*; *Roxb. fl. ind.* 2, *p.* 314;—*J. Grah. Cat. B. pl. p.* 175; not Hook.—Calodium Cochin-chinense, *Lour.*—*Rheed.* 7, *t.* 44;—*Rumph.* 5, *t.* 184, *f.* 4.) আকাশ বল্লী *Akash-bullee.* ♃. ⌒ Moluccas. Ceylon. Both Peninsulas of India. Arabia. Bengal, (Serampore.) Fl. small, white, C. S.; fr. Feb.

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* *C. americana*, Nees. (C. filiformis, Hook. exot. t. 167.) St. Vincent.

ORDER CXLVII.—PENÆACEÆ, R. Br.—Lindl. Nat. Syst. p. 203.

Much branched, small shrubs, referred to 3 genera containing 20 species, all natives of S. Africa, (*Harvey.*) Several plants, belonging to this order, have been introduced from C. G. H. but none have lived through the R. S.

ORDER CXLVIII.—NEPENTHACEÆ, Lindl. Nat. Syst. p. 205.

THE PITCHER-PLANT TRIBE.

Herbaceous or half-shrubby caulescent plants, of 1 genus, and 6 species: 1 from Madagascar; 1 from Cochin China; 1 from Java; and at least 2-3 from Singapore and Malacca. Properties unknown.

NEPENTHES, L. (*Spreng. syst.* 3, *p.* 9, *No.* 2423.)

1. *distillatoria*, Ait. (*L.?—Lodd. Cab. t.* 1017;—*B. M.* 55, *t.* 2798, (male.) N. indica, *Lam.*—N. Phyllamphora, (female.) *B. M.* 53, *t.* 2629, excl. syn. Willd. Poir. Lour. and Rumph.) ♄ Fl. small, male, green with a red column of stamens, C. S. Khassya Mountains.

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* *N. Rafflesiana*, Jack. Singapore.—*N. ampullacea*, Jack. Singapore.

ORDER CXLIX.—ARISTOLOCHIACEÆ, Lindl. Nat. Syst. p. 205.

THE BIRTHWORT TRIBE.

Herbs or shrubs, often twining or trailing, by Lindl. referred to 8 genera. Of these, Spreng. syst. enumerates 38 species from S. America, Mexico and the W. Indies; 13 from Europe and N. Africa; 7 from N. Ame-

rica; 3 from Syria and Asia Minor; 2 from Japan; (1 of them Heterotropa asaroïdes, Morr. and Decaisne); 2 from the Mascarenhas Islands; and 1 from New Holland. Of Indian species, have been discovered 4 of *Bragantia;* (Cochin China, Ceylon, the Concans,) and 5 of *Aristolochia,* (Java, Peninsulas of India, Bengal, Hindoostan, Khassya Mountains.) Aristolochia rotunda, longa and Clematitis are like the order in general, tonic and stimulating. A. fragrantissima of Peru possesses antidysenteric properties. A. Serpentaria is considered a powerful stimulant in the so-called adynamic fevers.

ARISTOLOCHIA, L. (*Spreng. syst.* 3, *p.* 683, *No.* 3050.)

1. *anguicida,* L. (*Spreng. syst.* 3, *p.* 751;—*Pers. syn.* 2, *p.* 527;—*Jacq. amer. t.* 144, *ed. pict. t.* 220;—*Roxb. H. B. p.* 64.) ♄ ⌒ Carthagena. Mexico. In H. C. G. fl. R. S. (*Roxb.*)
2. *indica,* L. (*Spreng. syst.* 3, *p.* 751;—*Pers. syn.* 2, *p.* 527;—*Roxb. fl. ind.* 3, *p.* 489;—*J. Grah. Cat. B. pl. p.* 178, excl. syn. Rumph.—*Rheed.* 8, *t.* 25.) ঈশ্বর মূল *Ishwur-mool.* ♄ ⌣ Rangoon. Penang. Coromandel. Cross-Island, Bombay Harbour. Hills throughout the Concan. Bengal, (Serampore.) Hindoosthan. New Holland. Fl. largish green, brownish red, R. S.; fr. C. S. *Root* nauseously bitter, considered by the natives to possess virtues against lues and menostasia. (*Ainslie.*)
3. *acuminata,* Lam. (*Spreng. syst.* 3, *p.* 751;—*Pers. syn.* 2, *p.* 527;—*Roxb. fl. ind.* 3, *p.* 480;—*J. Grah. Cat. B. pl. p.* 178.) ♄ ⌒ Mauritius. Banks of the Irawaddi. Taong-Dong. Penang. Chittagong. Courtallum. S. Concan. Silhet. Fl. largish, dark-greenish-purple, H. and R. S.; fr. C. S.
4. *saccata,* Wall. (*pl. as. rar.* 2, *t.* 103.) ♄ ⌣ Nepal. Khassya Mountains. Fl. dark-purple, internally yellow, Nov. and Dec.; fr. 0.
5. *odoratissima,* L. (*Spreng. syst.* 3, *p.* 752;—*Pers. syn.* 2, *p.* 526;—*Sloan. hist.* 1, *p.* 162, *t.* 104;—*Roxb. H. B. p.* 64.) ♄ ⌒ Jamaica. Mexico. Introduced into H. C. G. before 1814. Fl.?
6. *labiosa,* Ker. (*B. Reg.* 9, *t.* 689;—*B. M.* 52, *t.* 2545;—*Spreng. syst.* 3, *p.* 753.) ♄ ⌒ Brazil. Has been introduced into H. C. G. Fl.?
7. *cymbifera,* Mart. (*Spreng. syst.* 3, *p.* 753;—*Mart. nov. gen. and sp. pl.* 1, *p.* 76, *t.* 49;—*B. Reg.* 18, *t.* 1543.) ♄ ⌒ Brazil. Introduced in 1841.
8. *bracteata,* Retz. (*Spreng. syst.* 3, *p.* 754;—*Pers. syn.* 2, *p.* 527;—*Roxb. fl. ind.* 3, *p.* 490;—*J. Grah. Cat. B. pl. p.* 178.) ♃ ⌒ Coromandel, near Madras. Abundant on dark red, or black soil in the Deccan. Banks of the Jumna. Fl. dark-purple, and fr. nearly the whole year. Every part of this plant is nauseously bitter. The dried leaves are anthelmintic. Two of them fresh rubbed up in a little water, and given to an adult for a dose, once in twenty-four hours, are considered a cure for purging with gripes. (*Roxb.*) The

natives squeeze the juice of this plant into wounds to kill worms. (*Dr. Gibson.*)

9. *Clematitis*, L. (*spec.* 2, *p.* 1364.—*E. B.* 6, *t.* 368.) ⌒ Europe. Fl. July 1841.

10. *fœtens*, Lindl. (*B. Reg.* 21, *t.* 1824.) ⌒ W. Indies.

11. *brasiliensis*, Mart. ⌒ Brazil.

TRICHOPUS, Gärtn. (*Trichopodium, Lindl.—Endl. gen. p.* 345, *No.* 2165.)

? 1. *piperifolius*, Wall. ⌒ Khassya Hills.

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* *A. gigantea*, Mart. ♄ ⌒ Brazil.—*A. cordiflora*, Humb. ♄ ⌒ S. America.—*A. hastata*, Kth. ♄ ⌒ Cuba.—*A. rumicifolia*, Mart. ♄ ⌒ Brazil.—*A. fœtida*, Kth. ♄ ⌒ Mexico.—*A. cynanchifolia*, Mart. ♄ ⌒ Brazil.—*A. galeata*, Mart. ♄ ⌒ Brazil.—*A. trilobata*, L.; B. Reg. 17, t. 1399. ♄ ⌒ W. Indies.—*A. caudata*, Booth. ♄ ⌒ B. Reg. 17, t. 1453. Brazil.—*Bragantia Wallichii*, R. Br. Rheed. 6, t. 28. ♄ S. Concan.—*Heterotropa asaroïdes*, Morr. and Decaisne, 2|. Japan.

ORDER CL.—AMARANTACEÆ, R. Br.—Lindl. Nat. Syst. p. 207.

THE AMARANT-TRIBE.

Herbs or shrubs, sometimes climbing, by Lindl. excluding Cyathula and Leiospermum, referred to about 40 genera. Of these Spreng. syst. enumerates about 100 species for S. America, Mexico, and the W. Indies; 29 for N. Holland and Van Diemen's Land; 10 for N. America; 5 for Europe; 4 for Arabia; 2 for China and Japan; 1 for Middle Asia; 1 for Iberia; 1 for Tauria; 1 for E. Africa; 1 for Madagascar; 1 for the Mascarenhas Islands; and 1 for Guinea. In S. Africa, including Blepharolepis, Nees, have been discovered 11 species, (*Harvey*); and in the E. Indies, according to Martius, Roxb. flor. and Wall. Cat., about 70; viz. 2 of *Digera;* 3 of *Deeringia;* 3 of *Allmannia;* 20 of *Amarantus;* 5 of *Ærua;* ? 1 of *Polychroa*, (Lour.); 8 of *Celosia;* 1 of *Cladostachys;* 2 of *Gomphrena;* 2 of *Alternanthera;* 2 of *Psilotrichum;* 2 of *Centrostachys;* 8 of *Achyranthes;* 8 of *Desmochæta;* 1 of *Pupalia; and* 2 of *Polyscalis.* Properties under the species.

DIGERA, Forsk. (*Spreng. syst.* 1, *p.* 519, *No.* 874;—*Endl. gen. pl.* 1, *p.* 303.)

1. *muricata*, Mart. (Desmochæta alternifolia, *DC.*—Cladostachys alternifolia, *Swt.*—Achyranthes alternifolia, *L.;—Hb. Banks;—Roxb. fl. ind.* 1, *p.* 674; *ed. Carey*, 2, *p.* 500. Achyranthes muricata, *Lam.;* not L.) লতা মহুড়ি *Luta-muhoori.* ⊙ Both Peninsulas of India. Bengal, (Serampore.) Fl. small, red, R. S.; fr. C. S. *Leaves* and tender tops used by the natives in their curries. (*Roxb.*)

DEERINGIA, R. Br. (*Spreng. syst.* 1, *p.* 522, *No.* 923;—*Endl. gen. pl. p.* 304.)

1. *indica*, Spreng. (*syst.* 1, *p.* 816.—D. celosïoides, *Roxb. fl. ind.* 1, *p.* 682; *ed. Carey*, 2, *p.* 511;—*J. Grah. Cat. B. pl. p.* 168; not R. Br. —Celosia baccata, *Kön. in Retz. obs.*—*Rumph.* 5, *t.* 83, *f.* 2.) ঘোল মহনী *Ghol-muhunee.* ♄ ◡ Moluccas. Both Peninsulas of India. Bengal, (Serampore. Monghir.) Silhet. Nepal. Saharunpore. Fl. small, greenish, C. S.; fr. H. S.
2. *staminea*, Wall. 1830.
3. *tetragyna*, Roxb. (*fl. ind.* 1, *p.* 683; *ed. Carey*, 2, *p.* 512.) ♄ ◡ Moluccas. Fl. small, pale greenish-white. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

ALLMANNIA, R. Br. (*Lindl. Nat. Syst. p.* 208.)

1. *nodiflora*, R. Br. (*Wall. Cat.*—Chamissoa nodiflora, *Mart.*—Celosia nodiflora, *L.*—Achyranthes nodiflora, *L.*;—*Roxb. fl. ind.* 1, *p*, 678; *ed. Carey*, 2, *p.* 505.—*Burm. Zeyl. t.* 5, *f.* 2.) ⊙ Coromandel. Ceylon. In H. C. G. fl. and fr. the whole year.

AMARANTUS, L. (*Spreng. syst.* 1, *p.* 532, *No.* 1095;—*Endl. gen. pl.* 1, *p.* 303.)

1. *tenuifolius*, Willd. (*Spreng. syst.* 1, *p.* 926;—*Roxb. fl. ind.* 3, *p.* 602. —*J. Grah. Cat. B. pl. p.* 602.) ঘীনটি নটি *Gheenti-nutee.* ⊙ Peninsula of India. Bengal, (Serampore.) Fl. minute, green, and fr. R. S.
2. *polygonoïdes*, Roxb. (*fl. ind.* 3, *p.* 602;—*Wight. icon.* 2, *t.* 512.—L.?) চেরু নটি *Cheroo-nuti.* ⊙ Bengal, (Serampore.) Fl. minute, greenish, and fr. C. S. Though not cultivated, the natives use it as a pot-herb, as it is considered very wholesome, especially for convalescents. (*Roxb.*)
3. *polygamus*, L. (*Spreng. syst.* 1, *p.* 927;—*Roxb. fl. ind.* 3, *p.* 603;—*J. Grah. Cat. B. pl. p.* 169;—*Rumph.* 5, *t.* 82, *f.* 1.) চাঁপা নটি *Champa-nuti.* Fl. minute, greenish, and fr. R. S. Peninsula of India. Bengal, (Serampore,) &c. Cultivated all over the southern parts of Asia.

   β *ruber.* A reddish variety. লাল চাঁপা নটি *Lal-champa-nutee.*
4. *Blitum*, L. (*Spreng. syst.* 1, *p.* 927;—*Roxb. H. B. p.* 67;—*E. B.* 31, *t.* 2212.) ⊙ Europe. Fl. minute, greenish, R. S.
5. *tristis*, L. (*Spreng. syst.* 1, *p.* 928;—*Roxb. fl. ind.* 3, *p.* 604;—*J. Grah. Cat. B. pl. p.* 169;—*Wight. icon.* 2, *t.* 514;—*Rumph.* 5, *t.* 82, *f.* 2.) ⊙ Cultivated all over India. Fl. minute, green, H. and R. S.; fr. R. S.
6. *campestris*, Willd. (*Spreng. syst.* 1, *p.* 927;—*Pers. syn.* 2, *p.* 559.) ⊙ Bengal, (Serampore,) &c. Fl. minute greenish, H. S. and R. S.; fr. R. S. Cultivated.
7. *polystachys*, Willd. (*Spreng. syst.* 1, *p.* 928;—*Pers. syn.* 2, *p.* 550.) ⊙ Bengal, (Serampore,) &c. Fl. minute, greenish, H. and R. S.; fr. R. S. Cultivated.

8. *viridis*, L. (*Spreng. syst.* 1, *p.* 927;—*Roxb. fl. ind.* 3, *p.* 605;—*J. Grah. Cat. B. pl. p.* 169.) ⊙ Jamaica. Brazil. Peninsula of India. Bengal. Fl. minute, greenish, and fr. R. S. *Tender tops* eaten by the natives, though not so much esteemed as those of the cultivated species. (*Roxb.*)

9. *lividus*, L. (*Spreng. syst.* 1, *p.* 928;—*Pers. syn.* 2, *p.* 560;—*Roxb. fl. ind.* 3, *p.* 605.) গোবড়া নটি *Gobura-nuti.* ⊙ Virginia. Bengal, (Serampore.) Fl. minute, greenish, and fr. R. S. Cultivated.

10. *oleraceus*, L. (*Spreng. syst.* 1, *p.* 928;—*Roxb. fl. ind.* 3, *p.* 605;—*J. Grah. Cat. B. pl. p.* 169.) ⊙ Peninsula of India. Bengal, (Serampore,) &c. Fl. minute, greenish, and fr. R. S. Several varieties cultivated as pot-herbs, of which the following are remarkable:—

α. *viridis;* the common green sort. Most cultivated.

β. *ruber;* a beautiful variety, with a clear bright red stem, branches, petioles, nerves, and veins, and the leaves themselves rather rust-coloured.

γ. *albus;* all the parts that are red in β are here of a clear, shining white colour. শাদা নটি *Sada-nuti.* Much cultivated in Bengal.

δ. *giganteus*, Kön.; five to eight feet high, with a stem as thick as a man's wrist. The tender succulent tops of the stems and branches are sometimes served up on our tables, as a substitute for asparagus. (*Roxb.*)

11. *gangeticus*, L. (*Spreng. syst.* 1, *p.* 928.—*Roxb. fl. ind.* 3, *p.* 606.) রাঙ্গা শাক *Ranga-shak.* লাল শাক *Lal-shak.* ⊙ Bengal, (Serampore.) Assam, &c. Fl. small, greenish or reddish, and fr. R. S. Varieties of this species many, tolerably permanent, differing chiefly in colour from green with the slightest tinge of red, to rufous, liver-colored, and bright red. They are more generally used among the natives of Bengal than any other species or variety, and with No. 10, differ from No. 3, 5, 6 and 7, in not admitting of being cut, with the hope of succeeding crops from the same roots. (*Roxb.*)

12. *lanceolatus*, Roxb. (*fl. ind.* 3, *p.* 607.—A. lanceæfolius, *Roxb. H. B. p.* 67.) বাঁশ পাট নটি *Bans-pata-nuti.* ⊙ Bengal, (Serampore.) Fl. minute, greenish, and fr. R. S. The *leaves* and *tender tops* are eaten by the natives in their curries. (*Roxb.*)

13. *atropurpureus*, Roxb. (*fl. ind.* 3, *p.* 608.) লাল নটি *Lal-nuti* কঙ্কা নটি *Kunka-nuti.* ⊙ Bengal, (Serampore.) Fl. minute, greenish and fr. R. S. Cultivated as a pot-herb by the natives of Bengal, who sometimes call it বাঁশ পাট লাল নটি *Bansh-pata-lal-nuti.*

14. *tricolor*, L. (*Spreng. syst.* 1, *p.* 927;—*Roxb. fl. ind.* 3, *p.* 668;—*J. Grah. Cat. B. pl. p.* 169.) ⊙ China. Common in gardens. Fl. minute, greenish, and fr. nearly the whole year.

15. *melancholicus*, L. (*Spreng. syst.* 1, *p.* 927;—*Roxb. fl. ind.* 3, *p.* 608.) ⊙ Common in gardens. Fl. minute, greenish, and fr. R. S.

16. *fasciatus*, Roxb. (*fl. ind.* 3, *p.* 600.) তুন তুনি নটি *Toon-tooni-nuti.*

বন নটি *Bun-nuti.* ⊙ Peninsula of India. Bengal, (Serampore.) Fl. minute, greenish, and fr. R. S.

17. *hybridus*, L. (*Spreng. syst.* 1, *p.* 929;—*Roxb. fl. ind.* 3, *p.* 609.) ⊙ Virginia. Persia. In H. C. G. fl. R. S. (*Roxb.*)

18. *frumentaceus*, Buch. (*Roxb. fl. ind.* 3, *p.* 609.) ⊙ Mysore. Coimbatore, where this large luxuriant species is extensively cultivated for its seed chiefly, the flour of which forms a great article in the diet of the natives. In H. C. G. fl. R. and C. S.; fr. C. S. *(Roxb.)*

19. *retroflexus*, L. (*Spreng. syst.* 1, *p.* 929;—*Roxb. H. B. p.* 67.) ⊙ Italy. N. America. Fl. small, greenish, R. S.; fr. C. S.

20. *caudatus*, L. (*Spreng. syst.* 1, *p.* 929;—*Roxb. H. B. p.* 67;—*J. Grah. Cat. B. pl. p.* 169.) *Love lies bleeding.* ⊙ Persia. Common in gardens. Fl. small, deep-red, C. S.; fr. H. S.

21. *paniculatus*, L. (*Spreng. syst.* 1, *p.* 929;—*Roxb. H. B. p.* 67.) ⊙ N. America. W. Indies. Fl. minute, green, and fr. R. S.

22. *hypochondriacus*, L. (*Spreng. syst.* 1, *p.* 929;—*Roxb. H. B. p.* 67.) ⊙ Virginia. Fl. minute, deep-red, and fr. C. S.

23. *spinosus*, L. (*Spreng. syst.* 1, *p.* 929;—*Roxb. fl. ind.* 3, *p.* 611;—*Wight. icon.* 2, *t.* 513;—*J. Grah. Cat. B. pl. p.* 169;—*Rumph.* 5, *t.* 83, *f.* 1.) কাঁটা নটি *Kanta-nuti.* ⊙ Cochin China. Both Peninsulas of India. Bengal, (Serampore.) Assam. Fl. minute, green, R. and C. S.; fr. C. S.

Ærua, Forsk. (*Spreng. syst.* 1, *p.* 522, *No.* 919;—*Endl. gen. pl. p.* 303.)

1. *lanata*, Juss. (*Spreng. syst.* 1, *p.* 815;—*J. Grah. Cat. B. pl. p.* 168.—Achyranthes lanata, L.;—*Roxb. fl. ind.* 1, *p.* 676; *ed. Carey*, 2, *p.* 503.—A. villosa, *Forsk.*—Illecebrum lanatum, *L.*—*W.*—*Lour.*—*Rheed.* 10, *t.* 29;—*Burm. zeyl. t.* 26, *f.* 1.) ছায়া *Chhaya.* ♂ Peninsula of India. Arabia. Ceylon. Cochin China. Bengal, (Serampore.) Fl. small, white, C. S.; fr. H. S.

2. *javanica*, Juss. (*Spreng. syst.* 1, *p.* 815.—Æ. tomentosa, *Forsk.*—Æ. ægyptiaca, *Gmel.*—Achyranthes alopecuroïdes, *Lam.*—A. javanica, *Pers.*—A. incana, *Roxb. fl. ind.* 1, *p.* 671; *ed. Carey*, 2, *p.* 495.—Iresine javanica, *Burm. ind. t.* 65, *f.* 2.—I. indica, *Burm. ind. t.* 65, *f.* 1.—Illecebrum javanicum, *L.*—Celosia lanata, *L.*) ♂ ♃. Arabia. Ceylon. Peninsula of India. Kyouk Talong. Java. Oude. Fl. small, white, and fr. whole year.

3. *Monsoniæ*, Mart. (Achyranthes Monsoniæ, *Pers.*—*Roxb. fl. ind.* 1, *p.* 673; *ed. Carey*, 2, *p.* 499;—*Spreng. syst.* 1, *p.* 817.—A. pungens, *Lam.*—Celosia Monsoniæ, *Retz.*;—*J. Grah. Cat. B. pl. p.* 168.—Illecebrum Monsoniæ, *L.*) ⊙ Both Peninsulas of India. Bengal. Fl. minute, rose-coloured, C. S.; fr. H. S.

4. *scandens*, Mart. (Achyranthes scandens, *Roxb. fl. ind.* 1, *p.* 676; *ed. Carey*, 2, *p.* 503.) নুরিয়া *Nooriya.* ♃. ⌣ Bengal, (Serampore. Monghir.) Prome. Taong-Dong. Morung Mountains. Nepal. Kemaon. Fl. minute, white, Aug. Sept. and Oct.; fr. C. S.

CELOSIA, L. (*Spreng. syst.* 1, *p.* 522, *No.* 917;—*Endl. gen. pl.* 1, *p.* 304.) *Cockscomb.*

1. *argentea*, L. (*Spreng. syst.* 1, *p.* 814;—*Roxb. fl. ind.* 1, *p.* 678; *ed. Carey*, 2, *p.* 507;—*J. Grah. Cat. B. pl. p.* 167.—C. pyramidalis, *Burm. ind. t.* 25, *f.* 1.—C. albida, *Willd.*—C. margaritacea, *L.*—*Rheed.* 10, *t.* 38, 39.) শ্বেত মুর্গা *Shwet-moorga.* ⊙ Cochin China. Ceylon. Both Peninsulas of India. Bengal, (Serampore, Monghir.) Silhet. Nepal. Sirmore. Fl. small, white, and fr. C. S.
2. *cristata*, L. (*Spreng. syst.* 1, *p.* 814;—*Roxb. fl. ind.* 1, *p.* 679; *ed. Carey*, 2, *p.* 508;—*J. Grah. Cat. B. pl. p.* 168;—*Rumph.* 5, *t.* 84.) ⊙ Japan. China. Commonly cultivated in gardens. Fl. small, and fr. C. S.
   α. *rubra*; লাল মুর্গা *Lal-moorga.* Fl. red or purple.
   β. *aurea*; হলদী মুর্গা *Huldee-moorga.* Fl. gold-coloured.
3. *comosa*, Retz. (*Röm. and Sch. syst. veg.* 5, *p.* 465;—*Roxb. fl. ind.* 1, *p.* 679; *ed. Carey*, 2, *p.* 509.) ⊙ Sumatra. In H. C. G. fl. and fr. C. S. (*Roxb.*)
4. *cernua*, Roxb. (*fl. ind.* 1, *p.* 680; *ed. Carey*, 2, *p.* 509.) ⊙ Rajmahl hills. Fl. small, purple, at last becoming white at the edges. In H. C. G. fl. and fr. C. S.

GOMPHRENA, L. (*Spreng. syst.* 1, *p.* 523, *No.* 931;—*Endl. gen. pl.* 1, *p.* 301.)

1. *globosa*, L. (*Spreng. syst.* 1, *p.* 822;—*Roxb. fl. ind.* 2, *p.* 63;—*J. Grah. Cat. B. pl. p.* 168;—*Rheed*, 10, *t.* 37;—*Rumph.* 5, *t.* 100, *f.* 2.) *Globe amarant.* ⊙ Native place uncertain. Common in gardens. Fl. small. R. S; fr. C. S.
   α. *kermesina*; লাল গুল মকমল *Lal-gool-mukmul.* Fl. crimson. (B. M. 55, *t.* 2815.)
   β. *alba*; সফেদ গুল মকমল *Sufed-gool-mukmul.* Fl. white.
2. *decumbens*, *Jacq.* (*Spreng. syst.* 1, *p.* 823;—*Jacq. schonbr. t.* 482.) ⊙ Mexico. Fl. small, whitish, and fr. C. S.

ALTERNANTHERA, Forsk. (*Endl. gen. pl. p.* 301.)

1. *sessilis*, R. Br. (*Röm. and Sch. syst. veg.* 5, *p.* 554;—*R. Br. pr.* 1, *p.* 417;—*J. Grah. Cat. B. pl. p.* 168.—A. repens, Forsk.—A. triandra, *Lam.*—Illecebrum sessile, *L.*; *Lour.*—Gomphrena sessilis, *L.*—Achyranthes ficoïdea et sessilis, *Lam.*—A. triandra, *Roxb. fl. ind.* 1, *p.* 678; *ed. Carey*, 2, *p.* 505.—Allaganthera Forskäli, *Mart.*—Paronychia sessilis, *Desf.*—*Rheed.* 10. *t.* 11;—*Rumph.* 6, *t.* 15, *f.* 1;—*Burm. Zeyl. t.* 4, *f.* 2.) শাণচি *Shanchi.* ⊙ New Holland. Cochin China. Moluccas. Ceylon. Both Peninsulas of India. Arabia. Bengal, (Serampore, Monghir.) Fl. minute, white, R. and C. S.; fr. C. S.

PSILOTRICHUM, Bl. (*Bijdr. p.* 544;—*Endl. gen. pl. p.* 302.)

? 1. *ferrugineum*, Endl. (Leiospermum ferrugineum, *Wall. Cat.*; not Leiospermum, Don.—Achyranthes ferruginea, *Roxb. fl. ind.* 1, *p.* 675; *ed. Carey*, 2, *p.* 502.) রক্ত শেলেঞ্চি *Rukto-shelenchi.* ⊙ Bengal, (Serampore.) Fl. minute, crimson, R. and C. S.; fr. C. S.

ACHYRANTHES, L. (*Endl. gen. pl.* 1, *p.* 303.)

1. *aspera*, L. (*Spreng. syst.* 1, *p.* 817;—*Roxb. fl. ind.* 1, *p.* 672; *ed.*

Carey, 2, *p.* 496;—*J. Grah. Cat. B. pl. p.* 168; excl. Rheed. 10, t. 79. and syn. Rumph.—A. obtusifolia, *Lam.*—A. indica, *Roth.*—*Rheed.* 10, *t.* 78.—*Burm. zeyl. t.* 50, *f.* 3.) অপাঙ্গ *Upang.* ♂. Both Peninsulas of India. Bengal, (Serampore.) Nepal. Fl. small, greenish, and fr. nearly the whole year.

Desmochæta, DC. (*Endl. gen. pl.* 1, *p.* 303.)

1. *atropurpurea*, DC. (*Spreng. syst.* 1, *p.* 817;—*J. Grah. Cat. B. pl. p.* 168.—Achyranthes atropurpurea, *Lam.*—A. lappacea, *L.*;—*Roxb. fl. ind.* 1, *p.* 673; *ed. Carey*, 2, *p.* 500;—*Rheed.* 10, *t.* 59;—*Burm. zeyl. t.* 18, *f.* 1.) দইয়া খইয়া *Duiya-Khuiya.* ♂. Courtallum. Bombay. Bengal, (Serampore, Monghir.) Lower Nepal. Fl. minute, dark purple, R. and C. S.; fr. C. S.
2. *velutina*, Wall. (*Cat.*) ♃. Banks of the Irawaddi, at Yenangheun. Fl. small, whitish, R. and C. S.; fr. C. S.

Pupalia, Mart. (*Endl. gen. pl.* 1, *p.* 303.)

1. *prostrata*, Mart. (Desmochæta prostrata, *DC.*—*Spreng. syst.* 1, *p.* 818;—*J. Grah. Cat. B. pl. p.* 168.—Achyranthes prostrata, *L.*;—*Roxb. fl. ind.* 1, *p.* 674; *ed. Carey*, 2, *p.* 501.—Cyathula geniculata, *Lour.*—*Rheed.* 10, *t.* 79;—*Rumph.* 6, *t.* 11.) ☉ Moluccas. Peninsula of India. Fl. minute, greenish red or purple, and fr. C. S.

Centrostachys, Wall. (*Endl. gen. pl.* 1, *p.* 303.)

1. *aquatica*, Wall. (*Cat.*—*Endl. ichnogr, t.* 20.—Achyranthes aquatica, *Roxb. fl. ind.* 1, *p.* 673; *ed. Carey*, 2, *p.* 497.) ♃. ? Coromandel. Moulmein. Silhet. Goalpara. Nepal. Fl. largish, green, R. S.; fr. Dec.

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* *Digera ciliata*, Mart.—*Deeringia Amherstiana*, Wall. Simla. Sirmore.—*Allmania esculenta*, R. Br. Singapore.—*A. albida*, R. Br. Peninsula of India.—*Erua brachiata*, Mart. Coromandel. Banks of the Irawaddi, at Yenangheun.—*Gomphrena perennis*, L. ♃. Rio Janeiro.—*G. hispida*, L. Rheed. 9, t. 72. S. Concan.—*Alternanthera denticulata*, R. Br. Doab. Silhet.—*Polyscalis sequax*, Wall. Nepal.—*Cladostachys frutescens*, D. Don. Rumph. 5, t. 83, f. 1. ♄ Amboyna.—*Lestibudesia spicata*, Pet. Th. L. ♄ Madagascar.—*Trommsdorffia aurata*, Mart. S. America.—*T. pulverulenta*, Mart.—S. America.—*Mogiphanes villosa*, Mart. Brazil.—*M. flavescens*, Mart. New Granada.—*Brandesia villosa*, Mart. Brazil.—*B. rufa*, Mart. Brazil.—*Bucholzia maritima*. Mart. Brazil.

ORDER CLI.—CHENOPODIACEÆ,—Lind. Nat. Syst. p. 208.

THE GOOSEFOOT TRIBE.

Herbs or undershrubs, by Lindl. referred to 51 genera. Of these, Spreng. syst. assigns about 85 species to Europe; 36 to New Holland and Van Diemen's Land; 16 to N. America; 15 to Siberia; 15 to S. America;

18 to N. Africa; 10 to Dahuria; 10 to Caucasus; 7 to Tauria; 4 to Arabia; 2 to the Levant; 2 to Japan; 1 to China; 1 to Tartary; 1 to Madeira; and 1 to the Canaries. In S. Africa, including two Galenias, have been found 22 species, (*Harvey*); and in the E. Indies, according to Wall. Cat and Roxb. flor. 18, viz. 2 of *Salicornia;* 5 of *Salsola;* 1 of *Spinacia;* 1 of *Axyris;* 1 of *Atriplex;* 6 of *Chenopodium;* and 2 of *Basella.*—Properties under the species.

Salicornia, L. (*Spreng. syst.* 1, *p.* 5, *No.* 29; —*Endl. gen. pl.* 1, *p.* 293.) *Glasswort.*

1. *brachiata,* Roxb. (*Fl. ind.* 1, *p.* 84; *ed. Carey,* 1, *p.* 82.) ♄ Coromandel. Soonderbuns.—Fl. small, greenish, C. S; fr. H. S.—This species, as well as the next, and Salsola nudiflora, grow so abundantly on the coasts of India, that by incineration they would be able to supply barilla enough to make soap and glass for the whole world. (*Roxb.*)—The '*sejjee muttee*' of the bazars, a coarse kind of barilla, is procured by the incineration of unknown plants, growing on the shores of the salt lakes which are scattered through the Indian deserts. (*Royle.*)
2. *indica,* Willd. (*Spreng. syst.* 1, *p.* 18;—*Roxb. fl. ind.* 1, *p.* 85; *ed. Carey.* 1, *p.* 83;—*J. Grah. Cat. B. pl. p.* 171.) জদ্ পালঙ্গ *Judoo-palung.* ♄ Coromandel. Bombay. Soonderbuns. New Holland. Fl. very small, greenish, C. S.; fr. H. S. It is pickled by the natives. (*J. Grah.*)

Spinacia, L. (*Spreng. syst.* 3, *p.* 894, *No.* 3179;—*Endl. gen. pl.* 1, *p.* 294.) *Spinach.*

1. *oleracea,* L. (*Spreng. syst.* 3, *p.* 903;—*Gärtn. fr.* 2, *p.* 198, *t.* 126, *f.* 4.—*Roxb. H. B. p.* 72;—*J. Grah. Cat. B. pl. p.* 171.) *Common Spinach.* ☉ ♂. Arabia. (*Forsk.*) The Arabs were the first who introduced it into Spain. Fl. small, green, C. S.; fr. H. S.
2. *tetrandra,* Roxb. (*H. B. p.* 72;—*fl. ind.* 3, *p.* 771; not Stev.) ☉ পিনিশ *Pinish.* Much cultivated in Bengal. Native place uncertain. Fl. very small, green, C. S.; fr. H. S. This pot-herb is much esteemed by the natives.

Blitum, L. (*Spreng. syst.* 1, *p.* 6. *No.* 47;—*Endl. gen. pl.* 1, *p.* 295.)

1. *virgatum,* L. (*Spreng. syst.* 1, *p.* 22;—*B. M.* 8, *t.* 276;—*Roxb. H. B. p.* 2.) ☉ S. France. Spain. Tartary. Fl. minute, greenish, H. S.
2. *capitatum,* L. (*Spreng. syst.* 1, *p.* 22.) ☉ Tyrol. Switzerland. Fl. like those of *No.* 1, H. S.

Beta, L. (*Spreng. syst.* 1, *p.* 534, *No.* 1136;—*Endl. gen. pl.* 1, *p.* 295.) *Beet.*

1. *vulgaris,* L. (*Spreng. syst.* 1, *p.* 950;—*Gärtn. fr.* 1, *p.* 360, *t.* 75. *f.* 5;—*Roxb. H. B. p.* 21;—*J. Grah. Cat. B. pl. p.* 171.) *Common Beet.* ♂. S. Europe. N. Africa. Middle Asia. Fl. small, green, C. S.; fr. H. S.

   α. viridis; Green Beet.

   β. rubra; Red-rooted Beet.

   γ. alba; White-rooted Beet.

? 2. *bengalensis*, Roxb. (*fl. ind.* 2, *p.* 59.) ⊙ পালঙ্গ শাক *Palung-shak.* Native place unknown. Commonly cultivated in Bengal and the N. Circars. Fl. small, green, and fr. C. S. *Leaves* (only) used by the natives in their curries.

CHENOPODIUM, L. (*Spreng. syst.* 1, *p.* 532, *No.* 1091; *Endl. gen. pl.* 1, *p.* 296.) *Goosefoot.*

1. *urbicum*, L. (*Spreng. syst.* 1, *p.* 919;—*E. B.* 10, *t.* 717;—*Roxb. H. B. p.* 21.) ⊙ N. Europe. Tauria. Greece. Fl. very small, minute, pale green, C. S.; fr. H. S.
2. *rubrum*, L. (*Spreng. syst.* 1, *p.* 920;—*E. B.* 24, *t.* 1721.) ⊙ Europe. Fl. very small, reddish-green, C. S.; fr. H. S.
3. *murale*, L. (*Spreng. syst.* 1, *p.* 920;—*E. B.* 24, *t.* 1722;—*Roxb. H, B. p.* 21.) ⊙ Europe. C. G. H. America, near Loxa. Fl. small. green, Feb. and March; fr. March.
4. *album*, L. (*Spreng. syst.* 1, *p.* 920.) ⊙ Europe, from Lapland down to Portugal and Tauria. Egypt. India. N. America. Fl. small, green, C. S.; fr. H. S. Used by the Natives of India as a pot-herb.
   a. album; (*E. B.* 24, *t.* 1723;—*Roxb. fl. ind.* 2, *p.* 58.) চন্দন বেতু *Chundun-betoo.*
   β. *viride*; (Chenopodium viride, *Willd.*;—*Roxb. l. c.*;—*J. Grah. Cat. B. pl. p.* 171.) বেতু শাক *Bettoo-shak.* Entirely green.
   γ. *purpureum*, Roxb. (*l. c.*) লাল বেতু *Lal-betoo.* Angles of the stem and branches of a fine purple colour; leaves and the mealy panicles somewhat reddish. (*Roxb.*)
5. *ficifolium*, Sm. (*Spreng. syst.* 1, *p.* 920;—*E. B.* 24, *t.* 1724.—C. viride, *Curt. lond.* 2, *t.* 16; not Willd.) ⊙ Europe. Fl. small, green, Feb. and March; fr. March.
6. *hybridum*, L. (*Spreng. syst.* 1, *p.* 920;—*E. B.* 27, *t.* 1919.) ⊙ England. Tauria. Siberia. N. America. Fl. small, pale greenish, Feb. and March; fr. March.
7. *Quinoa*, Willd. (*Spreng. syst.* 1, *p.* 920;—*B. M.* 65, *t.* 3641.) ⊙ S. America, where along the Pacific, from the temperate parts of the Andes to the coast, it is the chief nourishment of the people. The seeds are either boiled in water into a sort of gruel, which, seasoned in various ways, especially with Pimento, is much relished by those who are accustomed to it;—or they are toasted and used as coffee. Fl. small, greenish, Feb.; fr. March and April.
8. *Botrys*, L. (*Spreng. syst.* 1, *p.* 920;—*Roxb. H. B. p.* 21.) ⊙ S. Europe. Siberia. Pennsylvania. New York. Fl. small, green, Jan. and Feb.; fr. March. Contains an essential oil, which renders it tonic and antispasmodic. The same is the case with the next species.
9. *ambrosioïdes*, L. (*Spreng. syst.* 1, *p.* 921;—*Roxb. H. B. p.* 21.) ⊙ S. America. Georgia. Portugal. Hungary. C. G. H. Fl. small, pale greenish, and fr. nearly throughout the year. Completely domesticated about Serampore.

10. *laciniatum*, Roxb. (*Fl. ind.* 2, *p.* 59.) ⊙ Bengal, (Serampore, Calcutta.) Fl. small, greenish, and fr. Jan. Feb. and March.

ATRIPLEX, L. (*Spreng.* 3, *p.* 912, *No.* 3207;—*Endl. gen. pl. p.* 295.)

1. *hortensis*, L. (*Spreng.* 3, *p.* 916;—*Roxb. H. B. p.* 21;—*J. Grah. Cat. B. pl. p.* 171.) *Garden Orache.* ⊙ Greece. Tartary. Cultivated all over Europe. Fl. small, green or reddish, C. S.; fr. March. In the Deccan cultivated as a spinach. (*Dr. Lush.*)

BOUSSINGAULTIA, H. B. and Kth. (*Spreng. syst. c. p. p.* 52.)

1. *baselloïdes*, H. B. and Kth. (*Spreng. c. p. p.* 108;—*Humb. nov. gen.* 7, *t.* 645, *b.*;—*B. M.* 64, *t.* 3620.) ♄ ⌒ Neighbourhood of Loxa, in the Quitinian Andes. Fl. small, whitish.

BASELLA, L. (*Spreng. syst.* 1, *p.* 534, *No.* 1135;—*Endl. gen. pl.* 1, *p.* 298.)

1. *cordifolia*, Lam. (*Spreng. syst.* 1, *p.* 950;—*Roxb. fl. ind.* 2, *p.* 105.—B. lucida, *L.*;—*Spr. l. c.*;—*Roxb. l. c.*—*Rheed.* 7, *t.* 24.) পুঁই শাক *Pooin-shak.* ♃. ⌒ Fl. small, rose-coloured, Jan., Feb., March; fr. H. S. A native of most parts of India, and much cultivated as a pot-herb.

   β. *rubra*; (B. rubra, *Spreng. l. c.*—*Rumph.* 5, *t.* 154, *f.* 2.) রক্ত পুঁই *Rukto-pooin.* রক্ত বন পুঁই *Rukto-bun-pooin*, when wild.

2. *alba*, L. (*Spreng. syst.* 1, *p.* 950;—*Roxb. fl. ind.* 2, *p.* 104, excl. var.;—*J. Grah. Cat. B. pl. p.* 170, excl. all the syn., except. *Rumph.* 5, *p.* 417.) সফেদ পুঁই *Sufed-pooin.* ♃. ⌒ All over India. Cultivated. বন সফেদ পুঁই *Bun-sufed-pooin*, when wild.

SALSOLA, L. (*Spreng. syst.* 1, *p.* 532, *No.* 1093;—*Endl. gen. pl.* 1, *p.* 298.) *Saltwort.*

1. *indica*, Willd. (*Röm. and Sch. syst. veg.* 6, *p.* 239;—*Roxb. fl. ind.* 2, *p.* 62;—*J. Grah. Cat. B. pl. p.* 170.) ♃. Coast of Coromandel. Salsette. Soonderbuns. Fl. very small, greenish, H. S. *Leaves* eaten by the natives where the plant grows, and considered very wholesome. (*Roxb.*)

2. *nudiflora*, Willd. (*Röm. and Sch. l. c.*;—*Roxb. o. c. p.* 60;—*J. Grah. Cat. B. pl. l. c.*) ♃. Native place, &c. the same as in *No.* 1.

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* *Rhagodia linifolia*, R. Br. ♄ Tropical New Holland.—*Salsola macrophylla*, R. Br. ♄ Tropical New Holland.—*Dysphania littoralis*, R. Br. ♃. Tropical New Holland.

ORDER CLII.—TETRAGONIACEÆ, Lindl. Nat. Syst. p. 209.

Herbs or shrubs, referred by Lindl. to 4 genera, which according to Spreng. syst. contain 14 species from S. Africa; 5 from S. America, Mexico, and the W. Indies; 1 from Mozambique; 1 from Europe; 1 from the

Canaries, N. Africa, and Arabia; and 1 from N. Zealand. In the E. Indies have been found only the following species:—

SESUVIUM, L. (*DC. pr.* 3, *p.* 453;—*W. and A. pr.* 1, *p.* 361.)

1. *repens*, Rottl. (*DC. l. c.*;—*W. and A. l. c.*—S. Portulacastrum, *Roxb. fl. ind.* 2, *p.* 509;—*J. Grah. Cat. B. pl. p.* 248; not L.—*Rumph.* 6, *t.* 72, *f.* 1.) ♃. Sea-shores of Salsette, Orun, Tranquebar, Moulmein, &c. Soonderbuns. Fl. small, green, internally white, H. S.

β. *Wightianum*, Saugor Island, Soonderbuns. ♃. R. S. 1841.

TETRAGONIA, L.

1. *expansa*, Ait. (*B. M.* 50, 2362.) ♃ Japan. New Zealand.

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* *Aizoon hispanicum*, L. ⊙ Spain.

ORDER CLIII.—PHYTOLACCACEÆ, Lindl. Nat. Syst. p. 210.

THE VIRGINIAN POKE TRIBE.

Herbs, undershrubs or trees referred by Lindl. to 7 or 8 genera, of which Spreng. syst. assigns 12 species to S. America and Mexico; 1 to N. America; 1 to the Canaries; 1 to Abyssinia, and 1 to Japan. In the E. Indies have been found 1 species of *Phytolacca;* 1 of *Rivina;* 1 of *Gisekia;* and 2 of *Bosea?* (Lour. Roxb.) Their native places are Nepal, Patna, the two Peninsulas of India, and Cochin China. Properties unimportant.

PHYTOLACCA, L. (*Spreng. syst.* 2, *p.* 284, *No.* 1744.)

1. *decandra*, L. (*Spreng. syst.* 2, *p.* 441;—*B. M.* 24, *t.* 931;—*Roxb. H. B. p.* 35.) ♃. Jamaica. Virginia. New England. Fl. smallish, reddish-greenish, Feb. and March; fr. H. S. Formerly used as an antirheumatic and purgative. *Leaves* acrid, but loosing this quality by boiling, and then eatable.
2. *octandra*, L. (*Spreng. syst.* 2, *p.* 441;—*Lam. ill. t.* 393;—*Roxb. H. B. p.* 35.) ♃. Mexico. Fl. smallish, white, Feb. and March; fr. H. S.
3. *acinosa*, Roxb. (*fl. ind.* 2, *p.* 458.) ♃. Nepal. Choor. In H. C. G. fl. Feb. and March; fr. H. S. Leaves acrid, loosing that quality by boiling, and then eaten by the natives. (*Roxb.*)
4. *dioeca*, L. (*Spreng. syst.* 2, *p.* 441;—*L'Herit. stirp.* 1, *p.* 145, *t.* 70.) ♄ S. America. Fl. smallish, white, March; fr. H. S.

RIVINA, L. (*Spreng. syst.* 1, *p.* 370, *No.* 482.)

1. *lævis*, L. (*Spreng. syst.* 1, *p.* 452;—*Lam. ill. t.* 81, *f.* 2;—*B. M.* 49, *t.* 2333;—*Roxb. H. B. p.* 11.) ♄ W. Indies. Fl. small, white, and fr. the whole year. Domesticated about Serampore.

GISEKIA, L. (*Spreng. syst.* 1, *p.* 535, *No.* 1151.)

1. *pharnaceoïdes*, L. (*Spreng. syst.* 1, *p.* 971;—*Roxb. Corom.* 2, *t.* 183;—*H. B. p.* 22;—*J. Grah. Cat. B. pl. p.* 250.—Kölreutera molluginoides, *Murr.*) ⊙ Coromandel. The Concans. Banks of the Irrawaddi. Saharunpore. Egypt. In H. C. G. fl. and fr. C. S. (Roxb.)

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* *Phytolacca mexicana*, Swt. (P. icosandra, Sims.; B. M. 53, t. 2633.) ♃. Mexico.—*P. bogotensis*, Humb. ♃. Bogota.—*P. icosandra*, L. ♃. W. Indies.—*P. stricta*, Hofm. ♃. S. America.—*Rivina humilis*, L.; B. M. 43, t. 1781: ♄ W. Indies.—*R. brasiliensis*, L. ♄ W. Indies.—*Bosea? trinervia*, Roxb. L. ♄ Kandalla Ghaut. Circars.

ORDER CLIV.—POLYGONACEÆ, Lindl. Nat. Syst. p. 211.

THE BUCK-WHEAT TRIBE.

Herbs, rarely shrubs, or trees, by Lindl. (adding Ampelygonum,) referred to 25 genera. Of these about 44, according to Spreng. syst. belong to Europe; 34 to S. America, Mexico, and the W. Indies; 30 to N. America; 24 to Siberia; 18 to New Holland and the South Sea Islands; 10 to N. Africa; 12 to Japan and China; 5 to the Levant; 4 to Thibet and Mongolia; 2 to Caucasus; 2 to the Canaries; 1 to Iceland; 1 to Dahuria; 1 to Arabia; 1 to Tristan d'Acunha; 1 to Madagascar; 2 to Cochin China; 1 to the Moluccas, and 1 to Java. In S. Africa have been found 20 species, (*Harvey,*); and in the E. Indies, according to Meisner and Roxb. fl. 64: viz. 1 of *Königia*, (also a native of Iceland,); 6 of *Rumex;* 1 of *Oxyria;* 4 of *Rheum;* 2 of *Coccoloba;* 1 of *Ceratogon;* 1 of *Ampelygonum;* 46 of *Polygonum;* and 3 of *Fagopyrum.* Properties under the species.

POLYGONUM, L. (*Spreng. syst.* 2, *p.* 175, *No.* 1510;—*Endl. gen. pl.* 1, *p.* 306.)

1. *orientale*, L. (*Spreng. syst.* 2, *p.* 257; *Meisner in Wall. pl. as. rar.* 3, *p.* 54;—*B. M.* 6, *t.* 213.) C. B. S. India. Japan. New Holland.

   β. *pilosum*, Meisn. (*l. c.*—Polygonum pilosum, *Roxb. fl. ind.* 2, *p.* 286.—Lagunea Cochinchinensis, *Lour.*) বড় পানী মরিচ *Buro-panee-murich.* ⊙ Bengal, (Serampore.) Fl. small, white, R. S.; fr. C. S.

2. *nutans*, Roxb. (*fl. ind.* 2, *p.* 285.) ⊙ Native place uncertain. Fl. small, white. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

3. *tomentosum*, Willd. (*Spreng. syst.* 2, *p.* 257;—*Meisn. in Wall. pl. as. rar.* 3, *p.* 55;—*Roxb. fl. ind.* 2, *p.* 287.) ⊙ Both Peninsulas of India. Ceylon. Bengal, (Serampore.) Saharunpore. Fl. small, white, R. S.; fr. C. S. Cattle eat this species greedily. (*Roxb.*)

4. *lanigerum*, R. Br. (*Spreng. syst.* 2, *p.* 258;—*Meisn. in Wall. pl. as. rar.* 3, *p.* 55;—P. lanatum, *Roxb. fl. ind.* 2, *p.* 285.) শ্বেত পানী মরিচ *Shwet-panee-murich.* ⊙ New Holland. Nepal. Neelgheries. Bengal, (Serampore.) Fl. small, white, R. S.; fr. C. S.
5. *barbatum*, L. (*Spreng. syst.* 2, *p.* 257;—*Meisn. in Wall. pl. as. rar. p.* 56;—*Roxb. fl. ind.* 2, *p.* 289.) ⊙ Both Peninsulas of India. Bengal. Saharunpore. China. Japan. Fl. small, rose-coloured. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*) Cattle eat it greedily. (*Roxb.*) *Seeds* carminative. (*Ainslie.*)
6. *glabrum*, Willd. (*Spreng. syst.* 2, *p.* 258;—*Meisn. in Wall. pl. as. rar.* 3, *p.* 57, excl. syn. P. tenellum, Roxb. H. B.;—*Roxb. fl. ind.* 2, *p.* 287;—*J. Grah. Cat. B. pl.* excl. syn. Rheed. 10, t. 80; B. M. and P. orientale, L.—*Rheed.* 12, *t.* 77.) ⊙ Both Peninsulas of India. Bengal, (Serampore.) Saharunpore. Fl. small, rose-coloured, R. S.; fr. C. S.
7. *tenellum*, Roxb. (*fl. ind.* 2, *p.* 289.) ⊙ Bengal, (Serampore.) Fl. small, white, R. S.; fr. C. S.
8. *rivulare*, Kön. (*Roxb. fl. ind.* 2, *p.* 290;—*J. Grah. Cat. B. pl. p.* 172.—*Rheed.* 12, *t.* 76.) ⊙ Peninsula of India. Bengal, (Serampore.) Fl. small, rose-coloured, R. S.; fr. C. S.
9. *flaccidum*, Roxb. (*fl. ind.* 2, *p.* 291.) পানী মরিচ *Panee-murich.* ⊙ Bengal, (Serampore.) Fl. small, white, R. S.; fr. C. S.
10. *horridum*, Buch. (*Roxb. fl. ind.* 2, *p.* 291;—*Meisn. in. Wall. pl. as. rar.* 3, *p.* 58.) ♄ ◡ Penang. Khassya Mountains. Assam. Nepal. Introduced into H. C. G. in 1810, but had not fl. up to 1814.
11. *perfoliatum*, L. (*Spreng. syst.* 2, *p.* 259;—*Roxb. fl. ind.* 2, *p.* 288;—*Meisn. in Wall. pl. as. rar.* 3, *p.* 59;—*Burm. ind. t.* 31, *f.* 2;—*Lam. ill. t.* 315, *f.* 3.) ♄ ◡ Khassya Mountains. Nepal. In H. C. G. fl. and fr. throughout the year. (*Roxb.*)
12. *herniarioïdes*, Delil. (*Spreng. syst.* 2, *p.* 256;—*Meisn. in Wall. pl. as. rar.* 3, *p.* 62.—P. Dryandri, *Spreng. syst.* 2, *p.* 255.—P. elegans, *Roxb. fl. ind.* 2, *p.* 291;—*Soland;* not Tenore.) ♃. Egypt. Oude. Bengal, (Serampore. Monghir. Silhet.) Fl. minute, rose-coloured, and fr. Jan., Feb. and March.
13. *aviculare*, L. (*Spreng. syst.* 2, *p.* 255;—*E. B.* 18, *t.* 1252;—*Roxb. H. B. p.* 29.) ⊙ Europe. Asia. N. America. Fl. very small, greenish-white-red, May and June.

Ampelygonum, Lindl. (*B. Reg.* 1838, *app. p.* 62.)

1. *chinense*, Lindl. (*l. c.*—Polygonum chinense, *L.;—Spreng. syst.* 2, *p.* 254;—*Meisn. in Wall. pl. as. rar. p.* 60;—*Roxb. fl. ind.* 2, *p.* 289; *J. Grah. Cat. B. pl. p.* 172;—*Burm. ind. t.* 30, *f.* 3.) ♄ Japan. China. Java. Nepal. Kemaon. Khassya Mountains. Assam. Burma. Neelgherry. Dindygul. Courtallum. Bangalore. Mahableshwar. Hills about Parr. Fl. small, white, nearly the whole year, but especially H. S.

FAGOPYRUM, Tournef. (*Meisn. in Wall. pl. as. rar. p.* 63;—*Endl. gen. pl.* 1, *p.* 307.)

1. *esculentum*, Mönch. (*Meisn. l. c.*—Polygonum Fagopyrum, *L.*;—*Spreng. syst.* 2, *p.* 254;—*Roxb. fl. ind.* 2, *p.* 292;—*E. B.* 15, *t.* 1044.) *Common Buck-wheat.* ⊙ Fl. small, pale rose, C. S.; fr. H. S. Central Asia. Cultivated all over the mountainous countries N. of Bengal. This like the following species, is used as food :—
2. *tataricum*, Gärtn. (*fr.* 2, *p.* 182, *t.* 119, *f.* 6.—Polygonum tataricum, *L.*;—*Spreng. syst.* 2, *p.* 254;—*Gmel. sib.* 3, *p.* 64, *t.* 13, *f.* 1.) ⊙ Tartary. Fl. small, pale rose, C. S.; fr. H. S.
3. *cymosum*, Meisn. (*Wall. pl. as. rar.* 3, *p.* 63.) ♃. Assam. Nepal. Has been introduced into H. C. G. by Mr. Webb. Fl.?

CERATOGONUM, Meisn. (*Wall. pl. as. rar.* 3, *p.* 63;—*Endl. gen. pl.* 1, *p.* 308.)

1. *atriplicifolium*, Meisn. (*l. c.*) ♃.? Native place uncertain. In H. C. G.

COCCOLOBA, L. (*Spreng. syst.* 2, *p.* 175, *No.* 1509;—*Endl. gen. pl.* 1. *p.* 308.) *Sea-side Grape.*

1. *uvifera*, L. (*Spreng. syst.* 2, *p.* 252;—*B. M.* 59, *t.* 3130;—*Roxb. H. B. p.* 29.) ♄ W. Indies. S. America. Fl. small, whitish, fragrant, April; fr. Oct. *Fruit* sweetish-acid, rather agreeable, but not much esteemed, though generally sold in the markets.—*Wood*, when boiled in water, gives out a red colour; it is also employed for Cabinet-work. (*Hook.*)
2. *crispata*, Buch. (*Roxb. fl. ind.* 2, *p.* 292.) ♃. Nepal. In H. C. G. fl. C. S. (*Roxb.*)
3. *pubescens*, Linn. (*B. M.* 59, *t.* 3166.) ♄ W. Indies.
4. *excoriata*, L. (excl. syn. Pluk.) ♄ W. Indies.

RUMEX, L. (*Spreng. syst.* 2, *p.* 15, *No.* 1385.—*Meisn. in Wall. pl. as. rar.* 3, *p.* 63;—*Endl. gen. pl.* 1, *p.* 308.) *Dock.*

1. *sanguineus*, L. (*Pers. syn.* 1, *p.* 394;—*E. B.* 22, *t.* 1533.) ♃. Europe. Virginia. Fl. small, greenish-yellowish. Has not fl. here, though cultivated for many years.
2. *pulcher*, L. (*Spreng. syst.* 2, *p.* 160;—*Pers. syn.* 1, *p.* 395;—*E. B.* 22, *t.* 1576.) ♃. Europe. Fl. small, pale-yellow. Has not fl. here, though cultivated for many years.
3. *Wallichianus*, Meisn. (*Wall. pl. as. rar.* 3, *p.* 64; not Röm. and Sch.—R. acutus, *Roxb. fl. ind.* 2, *p.* 208, not L.; nor R. Roxburghianus, Röm. and Sch. which is R. tuberosus, Roxb. in Willd. Hb.) বন পালঙ্গ *Bun-palung.* ⊙ Bengal. (Serampore.) Assam. Oude. Fl. small, yellowish, Jan., Feb. and March; fr. April. Every part of this plant possesses a considerable degree of astringency and bitterness, but no acidity. (*Roxb.*)
4. *vesicarius*, L. (*Spreng. syst.* 2, *p.* 160:—*Meisn. in Wall. pl. as. rar.* 3, *p.* 64;—*Roxb. fl. ind.* 2, *p.* 209;—*J. Grah. Cat. B. pl. p.* 172.) চুক পালঙ্গ *Chook-palung. Country Sorrel.* Fl. small, reddish, R. S.;

fr. C. S. ⊙ Africa. Cultivated in gardens all over Asia for culinary and medicinal purposes.

5. *Acetosa*, L. (*Spreng. syst.* 2, *p.* 461 ;—*E. B.* 2, *t.* 127 ;—*Roxb. H. B. p.* 26.) *Common Sorrel.* ♃. Europe. Has not fl. here.

6. *Acetosella*, L. (*Spreng. syst.* 2, *p.* 461 ;—*E. B.* 24, *t.* 1674 ;—*Roxb. H. B. p.* 26.) ♃. Europe. Fl. small, red, Feb. and March, but seldom ; fr. 0.

Emex, Neck. (*Spreng. syst.* 2, *p.* 162 ;—*Endl. gen. pl.* 1, *p.* 308.)

1. *spinosus*, Campd. (*Spreng. l. c.*—Rumex spinosus, *L.*) ⊙ Portugal. Sicily. Greece. N. Africa. Fl. small, greenish, Feb. and March ; fr. April.

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* *Fagopyrum emarginatum*, Meisn. (Polygonum emarginatum, Roth ; B. Reg. 13, t. 1065.) Nepal.—*Coccoloba longifolia*, L. ♄ W. Indies.—*C. tenuifolia*, L. ♄ Jamaica.—*C. diversifolia*, Jacq. ; Hook exot. fl. t. 102. ♄ St. Domingo.—*C. punctata*, L. ♄ W. Indies.—*C. nivea*, Jacq. ♄ Jamaica.—*Triplaris americana*, L. ♄ S. America.—*Podopterus mexicanus*, H. and B. ♄ Mexico.

ORDER CLV.—PETIVERIACEÆ, Lindl. Nat. Syst. p. 212.

Herbs or undershrubs, of 2-3 genera and as many species, natives of S. America and the W. Indies. *Seguiera asiatica*, Lour. most likely does not belong to the order. Properties unknown.

Petiveria, L. (*Spreng. syst.* 2, *p.* 164, *No.* 1402.)

1. *alliacea*, L. (*Spreng. syst.* 2, *p.* 168.) ♄ Jamaica. Yields a strong smell of garlic. Introduced into H. C. G. before 1814. Fl. ?

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* *Seguiera americana*, L. S. America.

ORDER CLVI.—SCLERANTHACEÆ, Lindl. Nat. Syst. p. 213.

Small herbs, referred to 3 genera containing 8 species : 4 from N. Holland and the South Sea Islands ; 3 from Europe ; and 1 from S. America. They are of no known use.

Scleranthus, L. (*DC. pr.* 3, *p.* 378.)

1. *annuus*, L. (*DC. l. c.* ;—*E. B.* 5, *t.* 351.) ⊙ Europe. Levant. N. America. Fl. small, pale green, Feb. and March.

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* *Guilleminea illecebroïdes*, H. B. and Kth. ♃. Quito.

ORDER CLVII.—NYCTAGINACEÆ, Lindl. Nat. Syst. p. 213.

THE MARVEL-OF-PERU TRIBE.

Herbs, shrubs or small trees, by Lindl. referred to 16 genera. Of these, Spreng, syst. assigns 42 species to S. America, Mexico and the W. Indies; 4 to N. America; 2 to New Holland; 1 to the Society Islands; 1 to Madagascar; 1 to Europe, and 1 to Egypt. 1 species of Boerhaavia has been found in S. Africa, according to Burchell. In the E. Indies have been discovered 5 species of *Boerhaavia;* 4 of *Pisonia*; 1 of *Oxia,* (Lour.) and — of *Epilithes,* Bl. Properties unimportant.

MIRABILIS, L. (*Spreng. syst.* 1, *p.* 501, *No.* 570;—*Endl. gen. pl.* 1, *p.* 311.) *Marvel-of-Peru.*

1. *Jalapa,* L. (*Spreng. syst.* 1, *p.* 536;—*B. M.* 11, *t.* 371;—*Roxb. H. B. p.* 16;—*J. Grah. Cat. B. pl. p.* 167.—Nyctago hortensis, *Juss.*—*Rheed.* 10, *t.* 75;—*Rumph.* 5, *t.* 89.) কৃষ্ণ কেলি *Kishno-keli.* ♃. Peru. Domesticated in our gardens; fl. and fr. whole year. *Root* purgative, whence the plant was formerly supposed to be the true Jalap-plant. Flowers large.
   α. kermesina; Flowers crimson.
   β. kermesino-alba; ditto, crimson-white.
   γ. alba; ditto white.
   δ. flava; ditto yellow.
   ε. flavo-alba; ditto yellow-white.
2. *longiflora,* L. (*Spreng. syst.* 1, *p.* 536;—*Sm. exot. bot.* 1, *t.* 23;—*Roxb. H. B. p.* 16.) ♃. Mexico. Introduced into H. C. G. in 1807, but had not flowered up to 1814.

OXYBAPHUS, L'Herit. (*Spreng. syst.* 1, *p.* 128, *No.* 199;—*Endl. gen. pl.* 1, *p.* 311.) *Umbrella-wort.*

1. *viscosus,* L'Herit. (*Spreng. syst.* 1, *p.* 180;—*B. M.* 13, *t.* 434.—Mirabilis viscosa, *Cav.*) ♃. Peru. Fl. middle-sized, deep-rose. C. S.

BOERHAAVIA, L. (*Spreng. syst.* 1, *p.* 24, *No.* 65;—*Endl. gen. pl.* 1, *p.* 311.)

1. *erecta,* L. (*Spreng. syst.* 1, *p.* 36, excl. syn.—B. procumbens, *Hb. Banks;*—*Roxb. fl. ind.* 1, *p.* 146; *ed Carey* 1, *p.* 148;—*J. Grah. Cat. B. pl. p.* 167;—*Rheed.* 7, 56;—*Burm. ind.* 1,) ♃. A very troublesome Weed common all over India. Fl. minute, and fr. whole year.
   α. rosea; গাদা পুর্ণা *Gada-poorna.* Fl. deep-rose.
   β. alba; শ্বেত পুর্ণা *Shwet-poorna.* Fl. white.
2. *repanda,* Willd. (*Pers. syn.* 1, *p.* 36;—*Roxb. H. B. p.* 2.) ♃. St. Helena. Fl. minute, C. S; fr. H. S.

PISONIA, Plum. (*Spreng. syst.* 2, *p.* 164, *No.* 1401;—*Endl. gen. pl.* 1, *p.* 312.)

1. *villosa,* Poir. (*Spreng. syst.* 2, *p.* 168.—P. aculeata, *Roxb. fl. ind.* 2, *p.* 217;—*J. Grah. Cat. B. pl. p.* 167; not L.) বাঘয়াচড়া *Baghachura.*

♄ ◡ Peninsula of India. Bengal, (Serampore.) Fl. small, greenish-white, March and April; fr. C. S. Makes impenetrable hedges.

2. *aculeata*, L. (*Spreng. l. c.—Lam. ill. t.* 861;—*Gärtn. fr.* 1, *p.* 367. *t.* 76, *f.* 4.) ♄ ◡ W. Indies. Fl. small, greenish-whitish, March and April.

3. *mitis*, Willd. H. C. G. in 1814.

Buginvillea, Juss.

1. *spectabilis*, Willd. *sp.* 2, *p.* 348;—*Lam. ill. suppl.* 5, *p.* 359.—Tricycla spectabilis, Poir. ♄ ◡ Rio Janeiro. August 1839.

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* *Mirabilis dichotoma*, L. ♃. Mexico.—*M. suaveolens*, Humb. ♃. Mexico. Already introduced into Bombay.—*M. hybrida*, Lepel. ♃. New Granada.—*Oxybaphus aggregatus*, Cav. ♃. New Spain.—*O. glabrifolius*, Vahl. ♃. New Spain.—*Allionia violacea*, L. ⊙ Cumana.—*A. incarnata*, L. ⊙ Cumana.—*Tricycla spinosa*, Cav. ♄ Buenos Ayres.—*Reichenbachia hirsuta*, Spreng. ♄ Brazil.—*Salpianthus arenarius*, Humb. ♄ Mexico.

ORDER CLVIII.—MENISPERMACEÆ, DC.—Lindl. Nat. Syst. p. 214.

THE COCCULUS TRIBE.

Twining shrubs, rarely trees, excluding Brannea, Bagalatta and Tiliacora, and adding Cyclea, Arn., referred by Lindl. to 20 genera. Of these, DC. pr. and Spreng. syst., enumerate 26 species for S. America, Mexico and the W. Indies; 4 for N. America; 3 for Madagascar; 3 for Japan; 3 for Timor; 1 for Senegal; 1 for Owaree; 1 for Arabia; 1 for Egypt; 1 for Mozambique; 1 for Mauritius; 1 for Dahuria; and 1 for the South Sea Islands. In S. Africa have been discovered 4 species, (*Harvey*,); and in the E. Indies about 60; viz. 1 of *Anamirta;* 3 of *Clypea;* 1 of *Cyclea;* 35 of *Cocculus;* 1 of *Epibaterium*, (Nephroia, Lour.); 1 of *Pselium*, (Lour.); 2 of *Gynostemma*, (Bl.); 8 of *Cissampelos;* 1 of *Stephania*, (Lour.); 4 of *Phytocrene*; 1 of *Natsiatum;* 1 of *Coscinium;* Cocculus hexagynus, Colebr. belongs to South China. — Properties under the species.

Anamirta, Colebr. (*W. and A. pr.* 1, *p.* 446.)

1. *Cocculus*, W. and A. (*l. c.;—J. Grah. Cat. B. pl. p.* 4.—A. paniculata, *Colebr. Linn. soc. trans.* 13, *p.* 52 and 66.—Menispermum Cocculus, *L.; Gärtn. fr.* 1, *p.* 219, *t.* 70, *f.* 7.—M. heteroclitum, *Roxb. fl. ind.* 3, *p.* 817.—Cocculus suberosus, *W. and A. pr.* 1, *p.* 11;—*DC. pr.* 1, *p.* 97.—C. orbiculatus, *DC. o. c. p.* 98; excl. syn. Pluk.—C. lacunosus, *DC. o. c. p.* 97.) ♄ ⌒ Circar Mountains. The Concans. Fl. small, greenish. In H. C. G. Fl. ? *Seeds* ascertained to be an irritating poison to quadrupeds and fishes, owing to the Picrotoxine

they contain, and which is so active, that twelve grains given to a dog killed it in five minutes, notwithstanding the copious vomiting the dose excited. *Seeds* (Cocculus indicus of the shops) used to adulterate beer, though prohibited under a penalty of from £200 to 500 on the seller. (*Wight.*)

Clypea, Bl. (*W. and A. pr.* 1, *p.* 14.)

1. *hernandifolia*, W. and A. (*l. c.*—Cissampelos hernandifolia, *Willd.*;—*DC. pr.* 1, *p.* 100;—*Roxb. fl. ind.* 3, *p.* 842.—C. hexandra, *Roxb.*—*o. c. p.* 841, excl. syn?) নিমুকা *Nimooka* ♄ ⌒ Peninsula of India. Bengal, (Serampore.) Assam. Fl. minute, greenish, R. S.
2. *glabra*, W. and A. (*pr.* 1, *p.* 450, annot.—Cissampelos glabra, *Roxb. fl. ind.* 3, *p.* 840.—Cocculus Roxburghianus, *DC.* 1, *p.* 96.) ♄ ⌒ Silhet. Fl. minute, yellowish, May; fr. Oct. and Nov. *Root* very large, acrid, used medicinally by the natives of Silhet.

Cyclea, Arn. (*Wight. ill.* 1, *p.* 22.)

1. *Burmanni*, Arn. (*l. c.*—Clypea Burmanni, *W. and A. pr.* 1, *p.* 14.—*J. Grah. Cat. B. pl. p.* 5.—Cocculus Burmanni, *DC. pr.* 1, *p.* 96;—C. peltatus, *DC. l. c.*—Menispermum peltatum, *Lam.*—Wal-tjedde, *Gärtn. fr.* 2, *p.* 488, *t.* 180, *f.* 12;—*Rheed.* 7, *t.* 49;—*Burm. zeyl. t.* 101.) ♄ ⌒ Coromandel. The Concans. Ceylon. Has been introduced into H. C. G.? Fl.?

Cissampelos, L. (*DC. pr.* 1, *p.* 100;—*W. and A. pr.* 1, *p.* 14.)

1. *convolvulacea*, Willd. (*W. and A. l. c.*;—*Roxb. fl. ind.* 3, *p.* 842, excl. syn. Rheed.—*J. Grah. Cat. B. pl. p.* 5.) ♄ ⌒ Dindygul. Rajmahl. Nepal. Fl. small, greenish, R. S.
2. *mauritiana*, Pet. Th. ♄ Mauritius.

Cocculus, Bauh. (*DC. pr.* 1, *p.* 96;—*W. and A. pr.* 1, *p.* 11.)

1. *cordifolius*, DC. (*o. c. p.* 97;—*W. and A. o. c. p.* 12;—*J. Grah. Cat. B. pl. p.* 4.—♂ *Wight. icon.* 2, *t.* 485, ♀ *ibid. t.* 486.—C. convolvulaceus, *DC. l. c.*—Menispermum cordifolium, *Willd.*;—*Roxb. fl. ind.* 3, *p.* 81.—M. glabrum, *Klein*; not Kön.) গুলঞ্চ *Gooluncha.* ♄ ⌒ Peninsula of India. Bengal, (Serampore.) Assam. Fl. small, yellowish. H. and R. S.; fr. C. S. Used extensively in a variety of diseases by the native practitioners of India, especially in such as are attended by febrile symptoms not of a high inflammatory kind, and in fevers of debility. The parts used are the *root*, *stems*, and *leaves*, from which a decoction called *Pachuna* is prepared. A sort of extract called *Palo* is obtained from the stem, and considered an excellent remedy in urinary affections and gonorrhœa. (*Trans. med. and phys. soc. Calc.* 3, *p.* 298.) From fifteen to thirty grains of the powdered root constitute a good emetic. (*Wight.*)
2. *crispus*, DC. (*pr.* 1, *p.* 97.—Menispermum crispum, *L.*—M. verrucosum, *Fleming*; *Roxb. fl. ind.* 3, *p.* 808;—*Rumph.* 5, *t.* 44, *f.* 1.) ♄ ⌒ Moluccas. Sumatra. Java. Fl. small, greenish, Feb. and March. Used against intermittent fevers among the Malays.

3. *acuminatus*, DC. (*pr.* 1, *p.* 99 ;—*W. and A. pr.* 1, *p.* 12 ;—*Deless. icon. sel.* 1, *t.* 95 ;—*J. Grah. Cat. B. pl. p.* 5.—C. radiatus, *DC. l. c.* —Menispermum acuminatum, *Lam.*—M. radiatum, *Lam.*—M. polycarpon, *Roxb. fl. ind.* 3, *p.* 816.—Tiliacora racemosa, *Colebr. ; Linn. soc. trans.* 13, *p.* 67.—Braunea menispermoides, *Willd. ;* as to the leaves and male flowers.—*Rheed.* 7, *t.* 3.) বাঘলতা *Baghaluta.* তিলিয়াকরা *Tiliyakura.* ♄ ⌒ Both Peninsulas of India. Bengal, (Serampore.) Oude. Assam. Fl. small, cream-coloured, sweet-scented, H. and R. S ; fr. C. S.

4. *villosus*, DC. (*pr.* 1, *p.* 98 ;—*W. and A. pr.* 1, *p.* 13.—C. sepium, *Colebr.*—Menispermum villosum, *Lam. ;* not Roxb.—M. hirsutum, *L. Roxb. fl. ind.* 3, *p.* 814 ; excl. syn. Gärtn.—M. myosotoides, *L.*) হুয়ের *Huyer.* ♄ ⌒ Both Peninsulas of India. Bengal, (Serampore.) Hurdwar. Fl. minute, greenish, R. S. ; fr. C. S. The *juice of the ripe berries* makes a good, durable, bluish-purple ink. A decoction of the fresh *roots*, with a few heads of long pepper, in goat's milk, is administered by the natives for rheumatic pains, half a pint every morning. It is considered heating, laxative, and sudorific. Curry is made of the leaves for patients who are under a course of the roots. (*Roxb.*)

5. *incanus*, Colebr. (Menispermum villosum, *Roxb. fl. ind.* 3, *p.* 812 ; —not Lam.) ♄ ⌒ Chittagong. Silhet. In H. C. G. fl. R. S. (*Roxb.*)

6. *tomentosus*, Wall. (*Cat.*—Menispermum tomentosum, *Roxb. fl. ind.* 3, *p.* 813.) পদ্ম গুলঞ্চ *Pudmo-gooluncha.* ♄ ⌒ Bengal, (Serampore.) Fl. small, green, C. S. ; fr. H. S.

7. *hexagynus*, Colebr. (Menispermum hexagynum, *Roxb. fl. ind.* 3, *p.* 816 ;—*Spreng. syst.* 2, *p.* 155.) ♄ ⌒ South of China. In H. C. G. fl. whole year. (*Roxb.*)

8. *triandrus*, Wall. (*Cat.*—Menispermum triandrum, *Roxb. fl. ind.* 3, *p.* 816.) ♄ ⌒ Penang. In H. C. G. fl. R. S. (*Roxb.*)

9. *palmatus*, DC. (*pr.* 1, *p.* 98 ;—*B. M.* 57, *t.* 2970, 71.—Menispermum palmatum, *Lam.*—M. Columba, *Roxb. fl. ind.* 3, *p.* 807.) কলম্ব *Kulumbo.* ♃. ⌒ Forests on the coast of Mozambique. Fl. small, green, R. S. much cultivated in the Mauritius. This plant produces the well known *Calumba root*, so much esteemed for its powerful antiseptic, tonic, and astringent properties.

10. *laurifolius*, DC. (*pr.* 1, *p.* 100 ;—*Deless. icon. select.* 1, *t.* 97.) 5 Nepal, Kemaon. Fl. small, yellowish-greenish, H. S. ; fr. 0.

11. *calophyllus*, Wall. MSS. In H. C. G. Fl. ?

12. *megaspermus*, (Menispermum megaspermum, *Roxb. H. B. p.* 72.) ♄ ⌒ Silhet. In H. C. G. fl. H. S. (*Roxb.*)

MENISPERMUM, L. (*DC.* 1, *p.* 102.)

1. *canadense*, L. (*DC. l. c. ;—B. M.* 44, *t.* 1910.) ♄ ⌒ N. America. Has not fl. here.

COSCINIUM, Colebr. (*Lindl. nat. syst. p.* 216.)

1. *fenestratum*, Colebr. (Menispermum fenestratum, *Gärtn. fr.* 1, *p.* 219. *t.* 46, *f.* 5;—*DC. pr.* 1, *p.* 103;—*Roxb. fl. ind.* 3, *p.* 809,) ♄ ⌒ Ceylon. Has been introduced into H. C. G.?

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* *Cocculus macrocarpus*, W. and A.; Wight. ill. 1, t. 7. Rheed. 11, t. 62. ♄ ⌒ The Ghauts.—*C. malabaricus*, DC. ♄ ⌒ S. Concan.—*C. Plukenetii*, DC. ♄ ⌒ Tanjore.—*C. oleracea*, Buch. Gungachara.—*Gynostemma pedatum*, Bl. Java.—*G. simplicifolium*, Bl. Java.—*Phytocrene gigantea*, Wall. pl. as. rar. 3, t. 216. ♄ ⌒ Martaban, near Amherst. —*P. bracteata*, Wall. Penang.—*P. palmata*, Wall. Penang.—*P. oblonga*, Wall. Penang.—*Natsiatum herpeticum*, Buch. Bagduyar.

ORDER CLIX.—LARDIZABALACEÆ.

(Sub-Order ? Lardizabaleæ,—Lindl. Nat. Syst. p. 216.)

Twining shrubs, seldom trees, (Burasaia) of 3 genera. DC. pr. enumerates 3 species for Chili and Peru; 1 for Madagascar; and 1 for China. The published Indian species are the following:—

STAUNTONIA, DC. (*pr.* 1, *p.* 96.—Hollböllia, *Wall.*)

1. *latifolia*, R. Br. (Hollböllia latifolia, *Wall. tent. fl. nep. t.* 16.) ♄ ⌒ Nepal. Kemaon. Has not fl. here.

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* *S. angustifolia*, R. Br. (Hollböllia angustifolia, *Wall. tent. fl. nep. t.* 17.) ♄ ⌒ Nepal.

ORDER CLX.—BREXIACEÆ, Lindl. Nat. Syst. p. 218.

The following are the only published species of this order, the properties of which are unknown.

BREXIA, Pet. Thouars. (*Spreng. syst.* 1, *p.* 520, *No.* 879.)

1. *madagascariensis*, Ker. (*B. Reg.* 9, *t.* 730;—*Spreng. syst.* 1, *p.* 792;—*c. p. p.* 94.—Venana madagascariensis, *Lam.*;—*Roxb. fl. ind. ed. Carey*, 2, *p.* 312.) 5 Madagascar. Fl. large, pale green, H. S.; fr. R. S.
2. *spinosa*, Lindl. (*B. Reg.* 11, *t.* 872;—*Spreng. syst. c. p. p.* 94;—B. heterophylla, *Bojer.*—Theophrasta serratifolia, *Hortul.*) 5 Madagascar. In H. C. G.

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* *B. chrysophylla*, Swt. 5 Madagascar.

ORDER CLXI.—ERICACEÆ, DC.—Lindl. Nat. Syst. p. 220.

THE HEATH TRIBE.

Undershrubs, shrubs or trees, by Lindl. referred to 43 genera. Of these, Spreng. syst. enumerates about 50 species from N. America; 46 from S. America, Mexico and the W. Indies; 26 from Europe; 9 from Siberia; 6 from the Mascarenhas Islands; 4 from the Straits of Magellan; 2 from the Levant, 1 from Caucasus; 1 from Dahuria; 1 from Madeira; 1 from the Canaries; 1 from Greenland; 2 from New Zealand; 3 from China; and 1 from Japan. In S. Africa, have been discovered 450 species, (*Harvey*); and in the E. Indies, according to Wall Cat. and Royl. ill, 22; viz. 8 of *Andromeda;* 1 of *Cassiope;* 3 of *Gaultheria;* and 10 of *Rhododendron.*—To the E. Indian Ericaceæ must be added the Javanese species of *Diplecosia, Vireya,* and *Hymenanthus,* Bl. Exclusive of Java, all the Indian plants of this order have been found on the Himalayas, the Khassya Hills, and the Neelgherries ones excepted.—General properties astringent and diuretic.

RHODODENDRON, L. (*Spreng. syst.* 2, *p.* 275, *No.* 1548.)

1. *arboreum,* Sm. (*exot. bot. t.* 9;—*B. Reg.* 11, *t.* 890;—*Spreng. syst.* 2, *p.* 292;—*Hook. exot. fl. t.* 168;—*Swt. fl. gard.* 3, *t.* 250.—R. puniceum, *Roxb. fl. ind.* 2, *p.* 409.—R. purpureum, *Buch. MSS.*) ♄ Nepal. Kemaoon. Fl. large, dark scarlet. In H. C. G. fl. April and May, (Roxb. H. B. p. 33.)—*Wood* used for making gun-stocks. (*Hardwicke.*)

* *Gaultheria fragrantissima,* Wall. ♄ Nepal.

ORDER CLXII.—VACCINIACEÆ, Lindl. Nat. Syst. p. 221.

THE BILBERRY TRIBE.

Shrubs or small trees, by Lindl. referred to 8 genera. Of these, Spreng. syst. assigns 30 species to S. America, Mexico, and the W. Indies; 30 to N. America; 3 to Europe; 3 to Japan; 1 to the Society Islands; 1 to Madagascar; 1 to Armenia; and 1 to Madeira. In the E. Indies, according to Wall. Cat. and Royl. ill., have been discovered 10 species; viz. 3 of *Vaccinium;* 2 of *Gaylusaccia;* and 6 of *Thibaudia;*—all natives of the Khassya Mountains, except 1 from the Neelgherries; 1 from Tavoy, and 1 from Java.—Properties unimportant.

VACCINIUM, L. (*Spreng. syst.* 2, *p.* 171, *No.* 1421.)

1. *Sprengelii,* Wall. (*Cat.*) ♄ Khassya Mountains.—Has not fl. here.
2. *secundum,* Wall. ♄ Neelgherries.
3. *Schmidianum,* Wall. ♄ Neelgherries.

THIBAUDIA, Pav. (*Spreng. syst.* 2, *p.* 275, *No.* 1553.)

1. *variegata*, Wall. (*Cat.*;—*Royle. t.* 79, *f.* 1.—Ceratostema variegatum, *Roxb. fl. ind.* 2, *p.* 413.—Agapetes variegata, *D. Don.*; *in G. Don's Mill. dict.* 3, *p.* 862.) ♄ Garrow Hills. Khassya Mountains. Fl. large, red and rose-coloured, with the mouth greenish, C. S.; fr. June and July. (*Roxb.*)
2. *vaccinacea*, Wall. (*Cat.*—Ceratostema vaccinaceum, *Roxb. fl. ind.* 2, *p.* 412.) ♄ Garrow Hills. Khassya Mountains. Fl. small, white, tinged with green, March and April; fr. June and July. (*Roxb.*)
3. *setigera*, Wall. (*Cat.*—Agapetes setigera, *D. Don.*; *in G. Don's Mill. dict.* 3, *p.* 862.) ♄ Khassya Mountains. Fl. largish, red, internally pale red, Feb. fr. 0.

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* *Thibaudia loranthiflora*, Wall. Tavoy.—*T. acuminata*, Wall. Khassya Mountains.—*Gaylussacia serrata*, Lindl. Khassya Mountains.

ORDER CLXIII.—EPACRIDACEÆ,—Lindl. Nat. Syst. p. 222.

Shrubs or small trees, by Lindl. referred to 26 genera, containing more than 150 species, all natives of N. Holland and South Sea Islands. Properties unimportant.

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* *Leucopogon malayanus*, Jack. ♄ Singapore, the only Indian species yet discovered.

ORDER CLXIV.—PRIMULACEÆ, Vent.—Lindl. Nat. Syst. p. 223.

THE PRIMROSE TRIBE.

Herbs, by Lindl. referred to 24 genera. Of these, Spreng. syst. enumerates about 65 species for Europe; 20 for N. America; 14 for S. America; 12 for Siberia; 10 for New Holland and the South Sea Islands; 6 for Caucasus; 5 for the Levant; 3 for N. Persia; 2 for Dahuria; 2 for China; 1 for Japan; 2 for Altai; 1 for N. Africa; 1 for Tauria; 1 for Arabia; 1 for Bourbon; 2 for Greenland; 1 for Patagonia; 1 for the Straits of Magellan. Five species have been found in S. Africa, (*Harvey,*); and about 47 in the Himalayas; viz. 8 of *Androsace*; 22 *of Primula*; 14 of *Lysimachia*; 1 of *Anagallis*; 1 of *Centunculus*; and 1 of *Samolus.* (*D. Don. Wall. Cat. Royle. ill.*) Properties of no importance.

PRIMULA, L. (*Spreng. syst.* 1, *p.* 504, *No.* 616.)

1. *denticulata*, Sm. (*exot. bot.* 2, *t.* 114;—*Roxb. fl. ind. ed. Carey*, 2,

p. 17; *Spreng. syst.* 1, *p.* 574, *c. p. p.* 56.) 4. Khassya Mountains. Nepal.—Fl. in H. C. G., C. S.

2. *prolifera*, Wall, (*Roxb. fl. ind. ed. Carey*, 2, *p.* 18;—*Spreng. syst.* 1, *p.* 574.) 4. Khassya Mountains. In H. C. G. fl. C. S.

CYCLAMEN, L. (*Spreng. syst.* 1, *p.* 504, *No.* 613.)

1. *persicum*, Mill. (*Spreng. syst.* 1, *p.* 572;—*B. M.* 2, *t.* 44.) 4. Greece. Has been introduced into H. C. G. Fl.?

ANDROSACE, L. (*Spreng. syst.* 1, *p.* 504, *No.* 617.)

1. *nana*, Horn. (*Loud. hort. brit. p.* 56, *No.* 3756.) ⊙ Fl. small, white, C. S. Denmark.

CENTUNCULUS, L. (*Spreng. syst.* 1, *p.* 369, *No.* 457.)

1. *minimus*, L. (*Spreng. syst.* 1, *p.* 440;—*E. B.* 8, *t.* 531.) ⊙ Europe. Fl. very small, rose-coloured, Feb.

ANAGALLIS, L. (*Spreng. syst.* 1, *p.* 503, *No.* 610.)

1. *arvensis*, L. (*Pers. syn.* 1, *p.* 173;—*E. B.* 8, *t.* 529.—A. phœnicea, *Lam.*—*Spreng. syst.* 1, *p.* 570.) ⊙ Europe. Middle Asia. N. America. Fl. smallish, scarlet, C. S.; fr. March.

   β *coerulea*; (A. arvensis, *Roxb. fl. ind. ed. Carey*, 2, *p.* 24; excl. syn.) ⊙ Kemaon. Nepal. Khassya Mountains. Fl. light blue, C. S.

2. *coerulea*, Schreb. (*Pers. syn.* 1, *p.* 173;—*Spreng. syst.* 1, *p.* 570;—*E. B.* 26, *t.* 1823.) ⊙ Europe. Middle Asia. Fl. smallish, blue, Feb.

ORDER CLXV.—MYRSINACEÆ,—Lindl. Nat. Syst. p. 224.

Shrubs, rarely climbing, or trees, by Lindl. referred to 20 genera. Of these, Spreng. syst. and Alph. DC. enumerate 59 species for S. America, Mexico and the W. Indies; 4 for Japan; 5 for New Holland and the South Sea Islands; 6 for Bourbon and Mauritius; 3 for Madagascar; 1 for N. America; 1 for the Canaries; 1 for the Azores; and 1 for China. Harvey assigns 15 species to S. Africa. In the E. Indies have, according to Alph. DC., (including Oncinus) been discovered 102 species; viz. 2 of *Ægiceras*; 13 of *Myrsine*; (including M. acuminata, Royl.); 1 of *Badula*, (Ceylon,); 54 of *Ardisia*; 13 of *Embelia*; 2 of *Choripetalum*; 2 of *Samara*, (Roxb.); 14 of *Mæsa*; and 1 of *Oncinus*. (Lour.) To these must be added 6 species uncertain as to their genus. Most of them inhabit the Himalayas, Assam, the Khassya Mountains, the Circars, Neelgherries, and the Mountains of the ultra-gangetic Peninsula of India, and of Java. But few species have been found in the plains. Properties almost unknown.

BADULA, Juss.

1. *Barthesia*, Alph. DC. ♄ Bourbon. Mauritius. Sept. 1839.

ÆGICERAS, Gärtn ; Kön ; R. Br. (*Spreng. syst.* 1, *p.* 509, *No.* 699 ;—*G. Don. in Mill. dict.* 4, *p.* 7, 8.)

1. *fragrans,* Kön. (*Ann. bot.* 1, *p.* 129 ;—*Spreng. syst.* 1, *p.* 641 ;—*G. Don. l. c. p.* 8 ; excl. syn. Rumph.—*Hook. bot. misc.* 3, *p.* 84, *t.* 21 ;—*J. Grah. Cat. B. pl. p.* 104.—Æ. majus, *Gärtn. fr.* 1, *p.* 216, *t.* 46, *f.* 1, excl. syn. Rumph ;—*Roxb. fl. ind.* 3, *p.* 130.—Æ. obovatum, *Bl. bijdr. p.* 693.—Æ. floridum, *Röm. and Sch. syst.* 4, *p.* 512.—Rhizophora corniculata, *L.—Rheed.* 6, *t.* 36.) हलसी *Hulsee.* ♄ N. Holland. Moluccas. Java. Coasts of both Peninsulas of India. Soonderbuns. Fl. smallish, white, fragrant, H. S. Bees give it the preference to all other shrubs, in attaching their combs to it. (*Dr. Heddle's MSS. Report.*)

MYRSINE, L. R. Br. (*Spreng. syst.* 1, *p.* 510, *No.* 718 ;—*G. Don's Mill. dict.* 4, *p.* 9.)

1. *bifaria,* Wall. (*Roxb. fl. ind. ed. Carey,* 2, *p.* 296 ;—*Spreng. syst. c. p. p.* 68 ;—*G. Don's Mill. dict. p.* 9.—M. potama, *D. Don.*) ♄ Nepal. Kemaon. Fl. small, white with a tinge of rose. Has not fl. here, though cultivated for more than fourteen years.
2. *semiserrata,* Wall. (*Roxb. fl. ind. ed. Carey,* 2, *p.* 293 ;—*Spreng. syst. c. p. p.* 68 ;—*Wall tent. fl. nep.* 1, *p.* 34, with a plate ;—*G. Don's Mill. dict. p.* 9.) ♄ Smaller hills and highest mountains of Nepal. Fl. small, pale rose-coloured. Has not fl. here yet.
3. *capitellata,* Wall. (*Roxb. fl. ind. ed. Carey,* 2, *p.* 295 ;—*tent. fl. nep. t.* 25 ;—*Spreng. syst. c. p. p.* 69 ;—*G. Don's Mill. dict. p.* 10 ;—*B. M.* 60, *t.* 3222.) ♄ Mountains of Nepal. Fl. small, greenish, C. S. ; fr. 0. *Wood* hard, durable, heavy, and, like that of No. 2, esteemed by the hill people for various carpenter's work. *Fruit* eatable. (*Wall.*)
4. *melanophleos,* R. Br. (*Spreng. syst.* 1, *p.* 663 ;—*G. Don's Mill. dict.* 4, *p.* 10.—Sideroxylon melanophleum, *L. ; Jacq. hort. vind.* 1, *p.* 89, *t.* 71 ;—*Roxb. H. B. p.* 17 ;—Manglila melanophleos, *Pers.*—Chrysophyllum melanophleum, *Lam.*—Scleroxylon melanophleum, *Willd.*—Romeria melanophlea, *Thunb. nov. gen. in Röm. arch.* 2, *B. p.* 1.) ♄ C. G. H. Fl. small, greenish, Sept. and Oct. ; fr. 0.

ARDISIA, Swz. (*Spreng. syst.* 1, *p.* 510, *No.* 717 ;—*G. Don's Mill. dict.* 4, *p.* 13.)

1. *colorata,* Roxb. (*fl. ind.* 1, *p.* 581 ; *ed. Carey,* 2, *p.* 271.) ♄ Khassya Mountains. Fl. small, red. In H. C. G. fl. and fr. whole year. (*Roxb.*) Here it has not ever flowered.
2. *lanceolata,* Roxb. (*fl. ind.* 1, *p.* 583 ; *ed. Carey,* 2, *p.* 275 ;—*G. Don's Mill. dict.* 4, *p.* 14.) ♄ Penang. Has not fl. here as yet.
3. *paniculata,* Roxb. (*fl. ind.* 1, *p.* 580 ; *ed. Carey,* 2, *p.* 270 ;—*Spreng. syst.* 1, *p.* 661 ;—*G. Don's Mill. dict.* 4, *p.* 14 ;—*B. M.* 50, *t.* 2364 ;—*B. Reg.* 8, *t.* 638.) ♄ Chittagong. Silhet. Fl. smallish, rose-coloured, April.

4. *floribunda*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 272;—*G. Don's Mill. dict.* 4, *p.* 15.) ♄ Nepal, or Sheopore. Fl. smallish, red. In H. C. G. fl.?
5. *humilis*, Vahl. (*Spreng. syst.* 1, *p.* 662;—*Vahl. symb.* 3, *p.* 40;—*G. Don's Mill. dict.* 4, *p.* 15.—A. solanacea, *Roxb. Corom.* 1, *t.* 27; *fl. ind.* 1, *p.* 580; *ed. Carey*, 2, *p.* 269;—*B. M.* 40, *t.* 1677;—*J. Grah. Cat. B. pl. p.* 104;—*Spreng. syst.* 1, *p.* 661.—A. littoralis, *Andr.*;—*B. Repos.* 10, *t.* 630.—A. umbellata, *Roxb. fl. ind.* 1, *p.* 582; *ed. Carey*, 2, *p.* 273;—*Lodd. B. Cab.* 6, *t.* 531.) বন জাম *Bun-jam.* ♄ Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Nepal. Sumatra. Java. Fl. smallish, pale rose-coloured, and fr. the whole year.
6. *pedunculosa*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 279;—*Spreng. syst. c. p. p.* 68.) ♄ Silhet. Fl. small, reddish. Has been in the garden here many years, without flowering.
7. *nereifolia*, Wall. (*Cat.*—*G. Don's Mill. dict.* 4, *p.* 15.) ♄ Silhet. Has not fl. here.
8. *nutans*, Alph. DC. (*G. Don's Mill. dict.* 4, *p.* 16.—A. punctata, *Bl. bijdr. p.* 687; not Lindl.) ♄ Java. Has been introduced in H. C. G. Fl.?
9. *oxyantha*, Wall. (*Cat.*—*G. Don's Mill. dict.* 4, *p.* 16.) ♄ Khassya Mountains. Has been introduced into H. C. G. Fl.?
10. *crenulata*, Vent. (*Choix. t.* 5;—*G. Don's Mill. dict.* 4, *p.* 18;—*Spreng. syst.* 1, *p.* 662.) ♄ Portorico. Mexico. Has been introduced into H. C. G. Fl.?
11. *odontophylla*, Wall. (*Cat.*;—*G. Don's Mill. dict.* 4, *p.* 18;—*B. Reg.* 22, *t.* 1892.) ♄ Khassya Mountains. Has been introduced into H. C. G. Fl.?
12. *mollis*, Bl. (*bijdr. p.* 689;—*G. Don's Mill. dict.* 4, *p.* 18.) ♄ Java. Has been introduced into H. C. G. Fl.?
13. *hymenandra*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 282;—*Wall. pl. as. rar.* 2, *t.* 175;—*G. Don's Mill. dict.* 4, *p.* 19;—*Spreng. syst. c. p. p.* 68.) ♄ Khassya Mountains. Has been many years in the garden here, without flowering.
14. *glandulosa*, Roxb. (*fl. ind.* 1, *p.* 584; *ed. Carey*, 2, *p.* 276;—*Spreng. syst. c. p. p.* 68;—*G. Don's Mill. dict.* 4, *p.* 19.) ♄ Silhet. Fl. small, white, R. S.
15. *citrifolia*, Wall.
16. *nana*, Colebr.

} Similar to A. umbellata. In H. C. G. Fl.?

17. *pubigera*, Wall. ♄ Khassya Mountains.
18. *glaucescens*, Wall. ♄ Khassya Mountains.
19. *Candolliana*, Wall. ♄ Khassya Mountains.

EMBELIA, Juss. (*Spreng. syst. c. p. p.* 50;—*G. Don's Mill. dict.* 4, *p.* 20.)

1. *Ribes*. Burm. (*fl. ind. p.* 62, *t.* 23;—*Roxb. fl. ind.* 1, *p.* 586; *ed. Carey*, 2, *p.* 285;—*Spreng. syst. c. p. p.* 69;—*G. Don's Mill. dict.* 4, *p.* 20;—*J. Grah. Cat. B. pl. p.* 104.—E. ribesioïdes, *L.*; *fl. zeyl.*

No. 403.) L. ♄ ◡ Ceylon. Both Peninsulas of India. Khassya Mountains. Fl. minute, greenish-yellowish. In H. C. G. fl. Feb. and March; fr. Aug. and Sept. (*Roxb.*) With the fruit of this plant the natives adulterate black pepper. (*Roxb.*)

2. *villosa*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 289;—*Spreng. syst. c. p. p.* 69;—*G. Don's Mill. dict.* 4, *p.* 20.) ♄ ◡ Rajmahl. Tavoy. Fl. small, whitish. In H. C. G. Fl. H. S.

3. *nutans*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 290;—*Spreng. syst. c. p. p.* 69;—*G. Don's Mill. dict. p.* 21.) ♄ Khassya Mountains. Fl. small, greenish-white, of an unpleasant odour, Dec. and Jan.

4. *robusta*, Roxb. (*fl. ind.* 1, *p.* 587; *ed. Carey*, 2, *p.* 287;—*Spreng. syst. c. p. p.* 69;—*G. Don's Mill. dict.* 4, *p.* 21.) ♄ Rajmahl Hills. Fl. small, greenish-white, R. S.; fr. C. S.

Choripetalum, Alph. DC. (*G. Don's Mill. dict.* 4, *p.* 21.)

1. *aurantiacum*, Alph. DC. (*l. c.*—Myrsine? aurantiaca, *Wall.*;—*Roxb. fl. ind.; ed. Carey*, 2, *p.* 300;—*Spreng. syst. c. p. p.* 69.) ♄ ◡ Peninsula of India. Fl. small, orange, March.

? 2. *Reevesianum*, Wall. MSS. In H. C. G. Fl. ?

? Corynocarpus, Forst. (*Spreng. syst.* 1, *p.* 519, *No.* 858;—*G. Don's Mill. dict.* 4, *p.* 23.)

1. *lævigatus*, Forst. (*Spreng. syst.* 1, *p.* 781;—*G. Don. l. c.*) ♄ New Zealand. Has been introduced into H. C. G. Fl. ?

Mæsa, Forsk. (*G. Don's Mill. dict.* 4, *p.* 21.)

1. *ramentacea*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 230. annot.;—*G. Don's Mill. dict.* 4, *p.* 22.—Bæobotrys ramentacea, *Roxb. fl. ind.* 1, *p.* 558; *ed. Carey*, 2, *p.* 231;—*Spreng. syst. c. p. p.* 84.) L. ♄ Khassya Mountains. Burma. Fl. small, greenish-yellow, March and April; fr. Oct. and Nov.

2. *nemoralis*, Wall. (G. *Don's Mill. dict.* 4, *p.* 22.—Bæobotrys nemoralis, *Forst. nov. gen. p.* 22;—*Vahl. symb.* 1, *p.* 19?—*Roxb. fl. ind.* 1, *p.* 559; *ed. Carey*, 2, *p.* 232;—*Spreng. syst.* 1, *p.* 760.) L. ♄ Silhet. Fl. small, white, Feb. and March; fr. May.

3. *lanceolata*, (M. indica, *Wall.*—*G. Don's Mill. dict.* 4, *p.* 22.—Bæobotrys indica, *Roxb. fl. ind.* 1, *p.* 557; *ed. Carey*, 2, *p.* 230;—*Spreng. syst.* 1, *p.* 760, *c. p. p.* 84;—*B. M.* 46, *t.* 2052.—B. lanceolata, *Vahl. symb.* 1, *p.* 19, *t.* 6;—*Spreng. syst.* 1, *p.* 760.—Mæsa, *Forsk. fl. ægypt. arab. p.* 22, *t.* 11.) L. ♄ Arabia. Wynaad. Martaban. Taong Dong. Chittagong. Khassya Mountains. Assam. Mussooree. Nepal. Fl. small, white, March and April; fr. May.

4. *argentea*, Wall. (*G. Don's Mill. dict.* 4, *p.* 22.—Bæobotrys argentea, *Roxb. fl. ind.; ed. Carey*, 2, *p.* 233;—*Spreng. syst. c. p. p.* 84.) ♄ Mussooree. Nepal. Fl. small, white. In H. C. G. Fl. ?

5. *macrophylla*, Wall. (*G. Don's Mill. dict.* 4, *p.* 22.—Bæobotrys macrophylla, *Roxb. fl. ind.; ed. Carey*, 2, *p.* 234;—*Spreng. syst. c. p. p.* 84.) ♄ Nepal. Fl. small, white, March and April.

JACQUINIA, L.

1. *ruscifolia*, Jacq. (*Amer. p.* 54.) ♄ S. America.

CLAVIJA, Ruiz. and Pav.

1. *ornata*, D. Don. (*B. Reg.* 21, *t.* 1764.) ♄ Caraccas, March 1840.

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* *Ægiceras ferreum*, Blume. Rumph. 3, t. 79. ♄ Java.—*Wallenia laurifolia*, Swz. ♄ Jamaica.—*W. angulata*, Jacq. schönb. 1, t. 30. ♄ Cultivated in the gardens of the Mauritius.—*Weigeltia myrianthos*, Alph. DC. ♄ Surinam.—*Conomorpha oblongifolia*, Alph. DC. ♄ Brazil.—*C. laxiflora*, Alph. DC. ♄ Banks of the Amazon.—*Cybianthus pendulinus*, Mart. ♄ Brazil.—*C. cuneifolius*, Mart. ♄ Brazil.—*Myrsine madagascariensis*, Alph. DC. ♄ Madagascar.—*M. Rapanea*, R. Br. ♄ Guiana.—*M. coriacea*, R. Br. ♄ Jamaica.—*M. Trinitatis*, Alph. DC. ♄ Trinidad.—*Badula micrantha*, Alph. DC. ♄ Bourbon. Mauritius.—*B. Sieberii*, Alph. DC. ♄ Mauritius.—*B. crassa*, Alph. DC. ♄ Bourbon. Mauritius.—*Oncostemum Commersonianum*, Ad. Juss. ♄ Madagascar.—*Ardisia divergens*, Roxb. ♄ Penang.—*A. amherstiana*, Alph. DC. ♄ Amherst.—*Embelia canescens*, Jack. ♄ ◡.—*Choripetalum undulatum*, Alph. DC. ♄ ◡ Nepal.—*Jacquinia aurantiaca*, Ait. B. M. 40, t. 1639. ♄ Sandwich Islands.—*J. armillaris*, Jacq. ♄ Jamaica.—*J. pubescens*, H. B. and Kth. ♄ Banks of the Amazon.—*Theophrasta Jussieui*, Lindl. ♄ St. Domingo.

ORDER CLXVI.—SAPOTACEÆ, Endl.—Lindl. Nat. Syst. p. 225.

THE SAPPODILLA TRIBE.

Trees and shrubs, referred by Lindl. (excluding Hunteria and Acosta, and adding Isonandra, Wight.) to 14 genera. Of these, Spreng. syst. enumerates 38 species for S. America, Mexico, and the W. Indies; 3 for Mauritius, (including 2 from Wall. Cat.); 6 from New Holland and the Friendly Islands; 4 from N. America; 1 from Arabia; 1 from N. Africa; and 1 from Guinea. In S. Africa, have been found 10 species, (*Harvey,*); and in the E. Indies 22; viz. 2 of *Chrysophyllum*; 5 of *Mimusops*; 7 of *Bassia*; 6 of *Sideroxylon*; and 2 of *Isonandra*;—nearly all natives of Nepal, Assam, the Khassya Mountains, the Circars, the Concans, the Mountains of India east of the Ganges, Ceylon, the Moluccas, and Java. Properties under the species.

ACHRAS, L. (*Spreng. syst.* 2, *p.* 12, *No.* 1316;—*G. Don's Mill. dict.* 4, *p.* 33.)

1. *Sapota*, L. (*Spreng. syst.* 2, *p.* 132;—*G. Don. l. c.*;—*Roxb. fl ind.* 2, *p.* 181;—*J. Grah. Cat. B. pl. p.* 106;—*B. M.* 58, *t.* 3111 *and* 3112.) *Common Sapota. Bully-tree.* L. ♄ W. Indies. Abundantly cultivated,

throughout all the hot parts of South America for the sake of its fruit. Not uncommon in our gardens. Fl. smallish, whitish, H. S.; fr. R. S. *Timber* considered of great service in the making of shingles for corn houses. *Bark* astringent, and commonly known by the name of Cortex jamaicensis, according to Browne, being frequently administered to the Negroes in lieu of Jesuit's Bark, and found to answer all the purposes of that medicine. From every part of the tree a tenacious, viscid, white juice issues. *Fruit* in appearance like an old, decayed potato, yet one of the most luscious in the W. Indies; but so abounding in an acrid milk, that it cannot be eaten until it is completely ripe; or, according to French authors, until it almost begins to be putrid. *Seeds* aperient, diuretic. (*Hook. l. c.)*

α. Fruit elliptic or ovate. (*Jacq. am. p.* 57, *t.* 41.—*Browne, jam. p.* 200, *t.* 19, *f.* 3.)

β. Fruit roundish, somewhat depressed. (*Jacq. am. l. c. t.* 41. *β.* Achras Zapotilla, *Browne, jam. p.* 200.—*Sloane, jam.* 2, *p.* 171, *t.* 230;—*ibid. p.* 172, *t.* 169, *f.* 2.)

Lucuma, Juss. (*Spreng. syst.* 1, *p.* 510, *No.* 723;—*G. Don's Mill. dict.* 4, *p.* 33.)

1. *mammosa,* Juss. (*Gen. pl. p.* 152;—*Gärtn. fil. fr.* 3, *p.* 129;—*Spreng. syst.* 1, *p.* 667; *G. Don. l. c.*—Achras mammosa, *L.; Roxb. H. B. p.* 25.—A. Sapota major, *Jacq. am.* 56, *t.* 182, *f.* 19; *ed. pict. p.* 32, *t.* 59.)—Sapota mammosa, *Mill. dict. No.* 2;—*Gärtn. fr.* 2, *p.* 104.—*Sloane, jam.* 2, *p.* 124, *t.* 218.) L. ♄ S. America. W. Indies.—*Common Mammee Sapota.* Fl. small, whitish. *Fruit, (American Marmalade,)* large, oval or top-shaped, covered with a brownish rough skin, under which is a soft pulp, of a russet colour, very luscious, which is called natural marmalade, from its likeness to marmalade of quinces. Was introduced from China into H. C. G. in 1807, but had not fl. up to 1814.

Chrysophyllum, L. (*Spreng. syst.* 1, *p.* 510, *No.* 722;—*G. Don's Mill. dict.* 4, *p.* 31.)

1. *Cainito,* L. (*Spreng. syst.* 1, *p.* 666;—*G. Don. l. c.;*—*Jacq. am. p.* 51, *t.* 37, *f.* 1; *ed. pict. p.* 30, *t.* 51;—*Lam. ill. t.* 120;—*Gärtn. fr.* 3, *p.* 120, *t.* 201;—*B. M.* 58, *t.* 3072;—*Roxb. H. B. p.* 17;—*Browne, jam. p.* 171, *t.* 14, *f.* 2;—*Sloane, jam.* 2, *p.* 170, *t.* 229.) *Star-apple.* L. ♄ W. Indies. S. America. Fl. small, yellowish-white, H. S.; fr. R. S. The Star-apple is a well known fruit in the W. Indies, where, however, it appears to be more esteemed by the natives, than it is by Europeans. (*Hook.*)
2. *macrophyllum,* G. Don.? (*Mill. dict.* 4, *p.* 32.) L. ♄ Sierra Leona. In H. C. G. Fl.?
3. *Roxburghii,* G. Don. (*Mill. dict.* 4, *p.* 33.—C. acuminatum, *Roxb. fl. ind.* 1, *p.* 599; *ed. Carey,* 2, *p.* 345;—*J. Grah. Cat. B. pl. p.* 105; not, Lam.) ♄ Khassya Mountains. Assam. Fl. minute, pale yellow,

April and May; fr. Oct. *Fruit* greedily eaten by the natives, though the pulp is nearly insipid, and uncommonly clammy, adhering to the lips and knife with great tenacity. (*Roxb.*)

4. *oblongum*, Wall. ♁ Khassya Hills, 1828.

IMBRICARIA, Commers. (*Juss. gen. pl. p.* 152;—*G. Don's Mill. dict.* 4, *p.* 35.)

1. *Commersonii*, G. Don. (*l. c.*—Mimusops Imbricaria, *Willd.*;—*Spreng. syst.* 2, *p.* 208;—*Bl. bijdr. p.* 675.) ♄ Bourbon. Mauritius. Java. In gardens. Has been cultivated here for many years, without flowering.

MIMUSOPS, L. (*Spreng. syst.* 2, *p.* 170, *No.* 1419;—*G. Don's Mill. dict.* 4, *p.* 34.)

1. *Elengi*, L. (*Spreng. syst.* 2, *p.* 208;—*G. Don. l. c.*;—*Gärtn. fr.* 1, *p.* 198, *t.* 42, *f.* 4;—*Roxb. Corom.* 1, *t.* 14; *fl. ind.* 2, *p.* 236;—*J. Grah. Cat. B. pl. p.* 106;—*Rheed.* 1, *t.* 20;—*Rumph.* 2, *t.* 63.) বকুল *Bukul.* ♄ Moluccas. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Silhet. Fl. middle-sized, white, fragrant, H. S.; fr. R. S. A very ornamental tree, on account of its fragrant flowers generally found in the gardens of the Natives, and round Mussulman Mausoleums.

2. *Kauki*, L. (*Spreng. syst.* 2, *p.* 208;—*G. Don's Mill. dict.* 4, *p.* 35;—*Roxb. fl. ind.* 2, *p.* 238;—*J. Grah. Cat. B. pl. p.* 106;—*R. Br. pr.* 1, *p.* 531.—Mimusops dissectus, *Spreng. l. c.*;—*B. M.* 59, *t.* 3157, excl. syn.—Mimusops hexandra, Roxb.—Achras dissecta, *Forst.*—A. Balata, *Aubl*;—*Rheed.* 4, *t.* 25;—*Rumph.* 3, *t.* 8.) ♄ New Holland. Moluccas. Malay Islands. Malabar. Gour. Fl. middle-sized, yellowish white, faintly tinged with rose, H. S. An unctuous fluid exudes from this tree. *Fruit* esculent, agreeably acid, on which account the tree is extensively cultivated in China, Manilla, and Malabar. The *leaves* pounded and mixed with the roots of Curcuma and with Ginger, are used as cataplasms for tumours. (*Hook.*)

3. *hexandrus*, Roxb. (*Corom.* 1, *t.* 15; *fl. ind.* 2, *p.* 238;—*Spreng. syst.* 2, *p.* 208;—*G. Don's Mill. dict.* 4, *p.* 35;—*J. Grah. Cat. B. pl. p.* 106.) ♄ Mountainous parts of the Circars. Malabar Hill. Bombay. Fl. smallish, whitish, H. S.; fr. R. S. *Wood* much used in Guzerat for a variety of purposes, such as making sugar-mill-beams, well-frames, and other things where toughness is required. *Fruit* eatable. (*Dr. Gibson.*)

4. *Erythroxylon*, Bojer. ♁ Mauritius. Bourbon.

BASSIA, Kön. (*Spreng. syst.* 2, *p.* 442, *No.* 1746;—*G. Don's Mill. dict.* 4, *p.* 35.)

1. *longifolia*, L. (*Spreng. syst.* 2, *p.* 447;—*G. Don. l. c.*;—*Gärtn. fr.* 2, *p.* 104, *t.* 104, *f.* 2;—*Roxb. fl. ind.* 2, *p.* 523.) ♄ Southern part of the Coast of Coromandel. Malabar. Ceylon. Fl. middle-sized, whitish, May; fr. Aug. and Sept. *Wood* as hard and durable as teak, but not so easily worked, nor is it procurable of such length. The *leaves* are

boiled in water, and given as a medicine in several diseases. The *bark* is a cure for the itch. The *flowers*, which fall in May, are gathered by the common people, dried in the sun, roasted, and eaten as food. They are also bruised and boiled to a jelly, and made into small balls, which are sold, or exchanged for fish, rice, &c. The *milk* of the *green fruit*, and of the tender bark is given as a medicine. The *oil* pressed from the *fruit* is used for lamps. It is the principal ingredient in making country soap, and to the common people a substitute for ghee and cocoa-nut in their curries and other dishes. Cakes are made of it, and many of the poor get their livelihood by selling these sweet oil-cakes. The cake, left after the oil is expressed, is used for washing the head, and carried as a small article of trade to those countries where the tree is not to be found. (*Roxb.*)

2. *latifolia*, Roxb. (*Corom.* 1, *t.* 19; *fl. ind.* 2, *p.* 526;—*Spreng. syst.* 2, *p.* 447, excl. syn. Forst.;—*G. Don's Mill. dict.* 4, *p.* 36;—*J. Grah. Cat. B. pl. p.* 107.) মহুয়া *Muhooa.* ♄ Mountainous parts of the Circars. Bengal. Malabar Hill. Bombay. Throughout the Concans. Guzerat. Malwa. Fl. middle-sized, white, with a tinge of green and cream-colour, March and April; fr. July and Aug. *Wood* hard, very strong, and proper for naves of wheel-carriages. *Flowers* eaten raw by the natives. An ardent spirit is distilled from them by the hill-people. The *seeds* yield by expression a large quantity of concrete oil, which is used to adulterate ghee, for frying cakes, and by the poorer people to burn. There is frequently to be found a drop of whitish, soft, tasteless resin on the apices of the flowers, before they open. (*Roxb.*)

3. *butyracea*, Roxb. (*As. Res.* 8, *p.* 477;—*fl. ind.* 2, *p.* 527;—*Spreng. syst. c. p. p.* 189;—*G. Don's Mill. dict.* 4, *p.* 36;—*D. Don. pr. fl. nep. p.* 146.) ♄ Almora Hills. Nepal. Fl. smallish, white. Has not fl. here as yet. This tree produces a vegetable butter. The *Kernels* are bruised into the consistence of cream, and then put into a cloth bag, with a moderate weight laid upon them, and left to stand till the oil or fat is expressed. This becomes immediately of the consistence of hog's lard, and is of a delicate white colour. It is much esteemed in rheumatism and contractions of the limbs. It is also used by the natives of rank perfumed as an unction. The pulp of the *fruit* is eaten by some. (*Roxb.*)

SIDEROXYLON, L. (*Spreng. syst.* 1, *p.* 510, *No.* 721;—*G. Don's Mill. dict. p.* 28.)

1. *inerme*, L. (*Spreng. syst.* 1, *p.* 666;—*G. Don. l. c.*;—*Mill. ill. t.* 299.—S. Argan, *Lam. ill. No.* 2455, *t.* 120, *f.* 1.—Romeria inermis, *Thunb. in Röm. arch.* 2, *p.* 2.) ♄ C. G. H. Fl. small, white. Has not fl. here, though it has been in the garden many years.

2. *regium*, Wall. (*Cat.*) L. ♄ Pegu. Has been introduced into H. C. G. Fl.?

* *Achras sessiliflora*, Poir. ♄ Mauritius.—*Lucuma Bonplandii*, Humb. L. ♄ Havannah.—*L. campechianum*, H. B. and Kth. ♄ Mexico.—*L. salicifolium*, H. B. and Kth. ♄ Mexico.—*Chrysophyllum aquaticum*, H. B. and Kth. ♄ Inundated places near the Orinoco.—*C. monopyrenum*, Swz; B. M. 61, t. 3303. ♄ Jamaica.—*C. acuminatum*, Lam. ♄ Cayenne.—*C. bicolor*, Poir. ♄ Portorico.—*C. argenteum*, Jacq. ♄ Martinique.—*C. sessiliflorum, Poir.* ♄ Cayenne.—*C. granatense*, Spreng. ♄ New Granada.—*Mimusops obtusifolius*, Lam. ♄ Mauritius.—*Bassia sericea*, Bl. ♄ Java.—*B. cuneata*, Bl. L. ♄ Java.—*B. Parkii*, G. Don. ♄ African Butter-tree. Bambara.—*Bumelia pallida*, Swz. ♄ Fields in Jamaica.—*B. nervosa*, Vahl. ♄ Cayenne.—*B. celastrina*, H. B. and Kth. ♄ Mexico.—*B. buxifolia*, Willd. ♄ Cumana.—*B. ferox*, Cham. and Schlecht. ♄ Mexico.—*Hornschuchia Bryotrophes*, Nees. Brazil.—*H. Myrtillus*, Nees. Brazil.—*Sideroxylon cinereum*, Lam. ♄ Mauritius.—*S. tomentosum*, Roxb. Corom. 1, t. 28. ♄ The Ghauts.—*S. Wallichianum*, G. Don. (S. rugosum, Wall. Cat.; not Röm and Sch.) ♄ Penang.—*Omphalocarpus procerus*, Beauv. L. ♄ Guinea.—*Isonandra lanceolata*, Wight. icon. 2, t. 359. ♄ Peninsula of India?—*I. villosa*, Wight. icon. 2, t. 360. ♄ Peninsula of India?

ORDER CLXVII.—DIOSPYRACEÆ.—EBENACEÆ, Vent.—Lindl. Nat. Syst. p. 226.

THE EBONY TRIBE.

Trees or shrubs, by Lindl. referred (adding Euclea) to 8 genera. Of these, Spreng. syst. assigns 11 species to New Holland and the Friendly Islands; 7 to S. America, Mexico, and the W. Indies; 6 to the Mascarenhas; 2 to N. America, and 1 to N. Africa, and S. Europe. Diospyros vaccinoïdes, Hook. belongs to China. In S. Africa have been found 30 species. (*Harvey,*) and in the E. Indies, according to Spreng., Roxb. and Wall. Cat., 42 species of *Diospyros;* and 2 of *Maba.* They are all discovered in the islands of the Indian Archipelago and in both Peninsulas of India; Diospyros extending from the Khassya Mountains to the Himalayas.

"Remarkable only for the hardness and blackness of the wood of some species, and for the eatable quality of the fruit. The former is well known under the name of Ebony and Ironwood; the latter is occasionally introduced from China as a dry sweetmeat. It is noted for extreme acerbity before arriving at maturity." (*Lindl.*)

Diospyros, L. (*Spreng. syst.* 2, *p.* 170, *No.* 1412; *G. Don's Mill. dict.* 4, *p.* 38.)

1. *tomentosa*, Roxb. (*fl. ind.* 2, *p.* 532;—*G. Don. l. c.*;—*Wight. icon.* 1, *t.* 182, 83.) তমাল *Tumal.* L. ♄ N. of Bengal, extending to Kheree

jungle. Fl. small, whitish, April and March ; fr. 0. *Wood* hard, black, heavy. (*Roxb.*)

2. *Chloroxylon*, Roxb. (*Corom.* 1, *t.* 49 ; *fl. ind.* 2, *p.* 538 ;—*Spreng. syst.* 2, *p.* 204 ;—*G. Don's Mill. dict.* 4, *p.* 38.) ♄ Coast of Coromandel, among the Circars. Fl. small, white. In H. C. G. fl. March and April. (*Roxb.*)
3. *cordifolia*, Roxb. (*Corom.* 1, *t.* 50 ; *fl. ind.* 2, *p.* 538 ;—*Spreng. syst.* 2, *p.* 204 ;—*G. Don's Mill. dict.* 4, *p.* 38.) বন গাব *Bun-gab.* ♄ Peninsula of India. Bengal, (Serampore. Monghir.) Fl. small, greenish-white, March and April ; fr. R. S.
4. *sylvatica*, Roxb. (*Corom.* 1, *t.* 47 ; *fl. ind.* 2, *p.* 537 ;—*Spreng. syst.* 2, *p.* 203 ;—*G. Don's Mill. dict.* 4, *p.* 40.) ♄ Circars. Introduced into H. C. G. in 1803, but had not fl. up to 1814.
5. *reticulata*, Willd. (*Spreng. syst.* 2, *p.* 203 ;—*G. Don's Mill. dict.* 4, *p.* 40.) ♄ Mauritius. Has not fl. here, though cultivated for many years.
6. *Ebenaster*, Retz. (*Spreng. syst.* 2, *p.* 203 ;—*G. Don's Mill. dict.* 4, *p.* 40.—D. Ebenum, *L. suppl. p.* 440 ;—*Wight. icon.* 1, *t.* 188 ;—*J. Grah. Cat. B. pl. p.* 108.—Hebenaster, *Rumph.* 3, *t.* 6. ?) ♄ Ceylon. Fl. small, greenish, March, April and May ; fr. R. S. This is the Ebony tree of Ceylon, said to produce the true Ebony wood of commerce, which however, seems to be the product of several species.
7. *Sapota*, Roxb. (*fl. ind.* 2, *p.* 535 ;—*G. Don's Mill. dict.* 4, *p.* 40 ;—*J. Grah. Cat. B. pl. p.* 108.—Sapotte nigra, *Sonner. et. nov. Guin. p.* 45, *t.* 14, 15, 16.) ♄ Mauritius. Fl. smallish, yellowish, March and April ; fr. R. S.
8. *ramiflora*, Roxb. (*fl. ind.* 2, *p.* 535 ;—*G. Don's Mill. dict.* 4, *p.* 40 ; *Wight. icon.* 1, *t.* 189.) L. ♄ Tipperah. Fl. small, white, March and April ; fr. Jan. and Feb. *Wood* strong, very hard. *Pulp* of the fruit edible. (*Roxb.*)
9. *Melanoxylon*, Roxb. (*Corom.* 1, *t.* 46 ; *fl. ind.* 2, *p.* 530 ;—*Spreng. syst.* 2, *p.* 203 ;—*G. Don's Mill. dict.* 4, *p.* 40.) L. ♄ Ceylon. Malabar. Coromandel. Orissa, &c. *Coromandel Ebony tree.*—In H. C. G. fl. April and May ; fr. Aug., Sept. and Oct. (*Roxb.*) Centre of large trees black, constituting the *Ebony*, surrounded with white and soft wood, which is soon destroyed by time and insects. Ripe *fruit* astringent, not very palatable, eaten by the natives. *Bark* astringent, used in the form of powder and mixed with black pepper against dysentery by the natives. *Roxb.*)
10. *montana*, Roxb. (*Corom.* 1, *t.* 48 ; *fl. ind.* 2, *p.* 538 ;—*Spreng. syst.* 2, *p.* 203 ;—*G. Don's Mill. dict.* 4, *p.* 40 ;—*J. Grah. Cat. B. pl. p.* 107.) ♄ Circar Mountains. Hills eastward of Panwell, extending northwards to Ruenka Lake, near Nahu. Fl. small, green, delightfully fragrant, March and April ; fr. 0.

11. *discolor*, Willd. (*Spec.* 4, *p.* 1108, excl. syn. ;—*Pers. syn.* 2, *p.* 624. —D. Mabola, *Roxb. H. B. p.* 40 ;—*B. Reg.* 14, *t.* 1139 ;—*G. Don's Mill. dict.* 4, *p.* 40.—Embryopteris discolor, *G. Don. o. c. p.* 41.—Cavanillea philippensis, *Desrouss. in encycl. meth. suppl.* 3, *p.* 663, *t.* 454.) ♃ Philippine Islands. Flowers middle-sized, yellowish-white, March and April ; fr. R. S.
12. *stricta*, Roxb. (*fl. ind.* 2, *p.* 539 ;—*G. Don's Mill. dict.* 4, *p.* 40.) ♄ Tipperah. Lately introduced. In H. C. G. fl. March and April. (*Roxb.*)
13. *vaccinioïdes*, Hook. (*exot. fl. t.* 139 ;—*Wall. Cat.*—Vaccinium fragrans, *Wall.*) ♄ China. Penang. Singapore. Fl. small, white. In H. C. G. Fl. ?
14. *Embryopteris*, Pers. (*Spreng. syst.* 2, *p.* 203, excl. syn. Gärtn. Lam. and Willd. ;—*B. Reg.* 6, *t.* 499.—D. glutinosa, *Kön.*—*Roxb. fl. ind.* 2, *p.* 533 ;—*J. Grah. Cat. B. pl. p.* 107.—Embryopteris glutinifera, *Roxb. Corom.* 1, *t.* 70 ;—*G. Don's Mill. dict.* 4, *p.* 41, excl. syn. Lam.—*Rheed.* 3, *t.* 41.) গাব *Gab.* ♄ Peninsula of India. Bengal, (Serampore.) Silhet. Assam. Hurdwar. Deyra-Dhoon. Fl. smallish, white, March and April ; fr. R. S. *Wood* of an indifferent quality, and not much used. *Ripe fruit* very astringent, rather unpalatable, eaten by the natives. Its viscid mucus is used for paying the bottoms of boats, and in Malabar, according to Rheede, for book-binding, both on account of its adhesiveness and its being obnoxious to worms. The *unripe fruit* contains a large proportion of tannin. An infusion is employed to steep fishing nets in, that they may be more durable. (*Roxb.*)
15. *racemosa*, Roxb. (*fl. ind.* 2, *p.* 536 ;—*Wight. icon.* 2, *t.* 415.—Embryopteris racemosa, *G. Don's Mill. dict.* 4, *p.* 41.) ♄ Khassya Mountains. Tipperah. In H. C. G. fl. March and April. (*Roxb.*)
16. *Kaki*, L. (*Spreng. syst.* 2, *p.* 204 ;—*Roxb. fl. ind.* 2, *p.* 527 ;—*Lour. ; J. Grah. Cat. B. pl. p.* 107 ;—*Wight. icon.* 2, *t.* 416.—Embryopteris Kaki, *G. Don's Mill. dict.* 4, *p.* 41.—Diospyros chinensis, *Bl. cat. hort. brit. p.* 110.—Kaki, *Kämpf. amœn. t.* 106.) L. ♄ Japan. China. Cochin China. Nepal. Cultivated in gardens. In H. C. G. fl. Feb. and March ; fr. R. S. (*Roxb.*) *Pulp* of the fruit edible, tolerably pleasant, though by no means equal to a good apple. (*Roxb.*) Fruit preserved in the same manner as the fig, by sprinkling meal or sugar over them.
17. *nigricans*, Wall. (*Cat.*) Silhet. In H. C. G. Fl.
18. *grandifolia*, Wall. ♃ Mauritius.
19. *heterophylla*, Wall. ♄ Burma.
20. *calycina*, Wall. ♃ Khassya Hills.
21. *grata*, Wall. ♃ Khassya Hills.

Royena, L. (*Spreng. syst.* 2, *p.* 282, *No.* 1686 ; *G. Don's Mill. dict.* 4, *p.* 42.)

1. *villosa*, L. (*Spreng. syst.* 2, *p.* 360 ;—*G. Don's Mill. dict. l. c.*—R.

scabra, *Burm. pr.* 13.) ♄ C. G. H. Has been cultivated here for many years, without flowering.

Maba, Forst. (*Spreng. syst.* 2, *p.* 11, *No.* 1303;—*G. Don's Mill. dict.* 4, *p.* 43.)

1. *buxifolia*, Pers. (*Spreng. syst.* 2, *p.* 125;—*G. Don. l. c.*—Ferreola buxifolia, *Roxb. Corom.* 1, *t.* 45;—*fl. ind.* 3, *p.* 790.) ♄ Circar Mountains. Fl. small, yellowish, H. S.; fr. C. S. *Wood* dark-coloured, remarkably hard, and durable. *Berries* universally eaten, when ripe of a pleasant taste. (*Roxb.*)

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* *Diospyros salicifolia*, Willd. ♄ S. America.—*D. macrophylla*, Bl. ♄ Java.—*D. obtusifolia*, Willd. L. ♄ Mexico.—*D. serrata*, Buch. L. ♄ Nepal.—*D. cerasifolia*, D. Don. ♄ Nepal.—*D. frutescens*, Bl. ♄ Java.—*D. obovata*, Jacq. ♄ Jamaica.—*D. bracteata*, Roxb. ♄ Doab.—*Pouteria guianensis*, Aubl. ♄ Gujana.

SUB-ORDER? STYRACEÆ, Rich.—Lindl. Nat. Syst. p. 227.

A very unsettled order, requiring a complete re-examination.—Trees or shrubs, (excluding Hopea, L.) by Lindl. referred to 8 or 9 genera. Of these, Spreng. syst. enumerates 24 species for S. America, Mexico and the W. Indies; 4 for N. America; 1 for Asia Minor and S. Europe; and 1 for China. In the E. Indies have been found according to Spreng., Roxb. and Wall. Cat., 27 species of *Symplocos;* 5 of *Styrax;* and 1 of *Decadia.* (Lour.) all natives of the mountains of India. Only one has been discovered in the plains of Bengal. Styrax Benzoin is a native of Sumatra, and Decadia of Cochin China. Properties unimportant.

Symplocos, L. (*Spreng. syst.* 3, *p.* 331, *No.* 2626;—*G. Don's Mill. dict.* 4, *p.* 1.)

1. *ferruginea*, Roxb. (*fl. ind.* 2, *p.* 542;—*G. Don's Mill. dict.* 4, *p.* 2.) ♅ Khassya Mountains. Fl. middle-sized, yellow, Sept. and Oct.
2. *spicata*, Roxb. (*fl. ind.* 2, *p.* 541;—*G. Don's Mill. dict.* 4, *p.* 2.) ♄ Khassya Mountains. Assam. Fl. small, yellow, R. S.; fr. C. S. *Nuts* hard, about the size of a pea, strung like beads, by the natives and hung round the necks of their children to prevent evil. (*Roxb.*)
3. *racemosa*, Roxb. (*fl. ind.* 2, *p.* 539;—*G. Don's Mill. dict.* 4, *p.* 3.) লোধ *Lodh.* ♄ Burdwan. Midnapore. Nepal. Kemaon. Fl. small, lively yellow, Dec.; fr. May. *Bark* much in request as a mordant in dyeing red with *Rubia cordifolia*, L. The red powder (*Abeer*) used by the natives during the *Hoolee* holidays is made of the bark of this tree. (*Roxb.*)
4. *pulcherrima*, Wall. ♅ Nepal.

STYRAX, L. (*Spreng. syst.* 2, *p.* 274, *No.* 1539;—*G. Don's Mill. dict.* 4, *p.* 4.)

1. *serrulatus*, Roxb. (*fl. ind.* 2, *p.* 415;—*G. Don. o. c. p.* 5.) ♄ Chittagong. Fl. largish. In H. C. G. fl. H. S.; fr. R. S. (*Roxb.*)
2. *Benzoin*, Dryand. (*philos. trans.* 77, *p.* 308, *t.* 12;—*Spreng. syst.* 2, *p.* 285;—*G. Don's Mill. dict.* 4, *p.* 6;—*Roxb. fl. ind.* 2, *p.* 416;—*Bl. bijdr. p.* 671.) ♄ Sumatra. Introduced into H. C. G. in 1812. Fl.? This tree produces the gum-resin called Benzoin, of which the only preparation is *flores benzoes*, a medicine now nearly out of use.

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* *Symplocos Alstonia*, L'Herit. ♄ New Granada.—*S. coccinea*, H. and B. ♄ Mexico.—*S. serrulata*, H. and B. ♄ New Granada.—*S. mucronata*, H. and B. ♄ Mexico.—*S. martinicensis*, L. ♄ Martinique.—*S. Ciponima*, L'Herit. ♄ Guiana.—*S. sinica*, Ker.; B. Reg. 9, t. 710. ♄ China.—*Styrax floridus*, Pohl. ♄ Brazil.—*S. ferrugineus*, Pohl. ♄ Brazil.—*S. erymophyllus*, Pohl. ♄ Rio Janeiro.—*S. acuminatus*, Pohl. ♄ Rio Janeiro.—*S. reticulatus*, Mart. ♄ Brazil.—*S. aureus*, Mart. ♄ Brazil.—*Paralea guianensis*, Aubl. L. ♄ Guiana.—*Diclidanthera penduliflora*, Mart. ♄ Brazil.—*D. laurifolia*, Mart. ♄ Rio Janeiro.

ORDER CLXVIII.—ILICIACEÆ, AQUIFOLIACEÆ, DC.—Lindl. Nat. Syst. p. 228.

THE HOLLY TRIBE.

Trees or shrubs, by Lindl. referred to 14 genera. Of these, DC. pr. and Spreng. syst. enumerate 28 for S. America, Mexico, and the W. Indies; 20 for N. America; 9 for Japan; 2 for Europe; 2 for Madagascar; 1 for Mauritius; 1 for the Canaries; 1 for Madeira; 1 for China; 1 for the Straits of Magellan; 1 for N. Africa; and about 10 for S. Africa. In the East Indies have, according to Spreng. and Wall. Cat. been discovered about 14 species of *Ilex* or *Prinos*; and 2 of *Monetia*. With the exception of *Monetia tetracantha*, an inhabitant of the plains of India, all the Indian forms of this order have been found in the Himalayas, the Khassya Mountains, the Neelgherries, and the mountains about Penang, Singapore and Moulmein. Properties unimportant.

CASSINE, L. (*Spreng. syst.* 1, *p.* 533, *No.* 1110;—*G. Don's Mill. dict.* 2, *p.* 12;—*DC. pr.* 2, *p.* 11.)

1. *barbara*, L. (*Spreng. syst.* 1, *p.* 939;—*G. Don. o. c. p.* 13;—*DC. o. c. p.* 12.) ♄ C. B. S. Introduced in 1840.

ILEX, L. (*DC. pr.* 2, *p.* 13;—*G. Don's Mill. dict.* 2, *p.* 16.)

1. *excelsa*, Wall. (*Cat.*—Cassine excelsa, *Wall.*;—*Roxb. fl. ind.*; *ed. Carey*, 2, *p.* 376;—*Spreng. syst. c. p. p.* 123; *G. Don's Mill. dict.* 2, *p.* 13.) ♄ Nepal. Kemaon. Has been introduced into H. C. G. Fl.?

ASTEROGYNE, Wall.

1. *coriacea*, Wall. (Casearia? pentandra, Wall. MSS.)

? MONETIA, L'Herit. (*Spreng. syst.* 1. *p.* 369, *No.* 465;—*G. Don's Mill. dict.* 4, *p.* 105;—*Harvey, gen. p.* 411.)

1. *tetracantha*, G. Don. (*l. c.*—M. barlerioïdes, *L'Herit. stirp. nov. t.* 1;—*Spreng. syst.* 1, *p.* 442;—*Roxb. fl. ind.* 3, *p.* 765;—*Harvey, l. c.*—Azima tetracantha, *Lam.*) ত্রিকাঁটা জাতী *Trikanta-jatee.* ♄ S. Africa. Peninsula of India. Bengal, (Serampore.) Fl. small, yellow, and fr. the whole year.

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* *Myginda microphylla*, DC. ♄ St. Domingo.—*M. rotundata*, Lam. ♄ the Antilles.—*M. uragoga*, Jacq. ♄ Carthagena.—*M. ilicifolia*, Lam. ♄ St. Domingo.—*M. myrsinoïdes*, H. B. and Kth. ♄ Hot places of Peru.—*M. pallens*, Sm. ♄ Antigua.—*M. latifolia*, Swz. ♄ W. Indies.—*Ilex dipyrena*, Wall.; pl. as. rar. 3, t. 292, ♄ Nepal.—*I. chinensis*, Sims; B. M. 46, t. 2043. ♄ China.—*I. ovalifolia*, Meyer. ♄ S. America.—*I. salicifolia*, Jacq. ♄ Mauritius.—*I. odorata*, Buch. ♄ Nepal.—*Prinos Godajam*, Colebr.; Wall. pl. as. rar. 3, t. 261. Khassya Mountains.—*Macoucoua guianensis*, Aubl. ♄ Guiana.—*Monetia diacantha*, Willd. ♄ The Concans.

ORDER CLXIX.—NOLANACEÆ, Lindl. Nat. Syst. p. 229.

Herbs or undershrubs, by Lindl. referred to 3 genera, of which 8 species of *Nolana* inhabit Peru and Chili; 4 of *Dichondra*, S. America, Mexico, and the West Indies; one (D. repens, Forst.) also being common to Carolina, New Holland, Van Diemen's Land and Ava; and 1 of *Falkia*, S. Africa. Properties unknown.

NOLANA, L. (*Spreng. syst.* 1, *p.* 570, *No.* 714;—*G. Don's Mill. dict.* 4, *p.* 479.)

1. *atriplicifolia*, Hortul. (*ex. D. Don. in Swt. fl. gard. n. s. t.* 305;—*G. Don's Mill. dict.* 4, *p.* 479.—N. grandiflora, *Lehm.*) ⊙ Peru. Fl. large, blue, internally white-yellow, March.

2. *prostrata*, L. fil. (*Dec.* 1, *t.* 2;—*Spreng. syst.* 1, *p.* 660;—*G. Don's Mill. dict.* 4, *p.* 479;—*B. M.* 19, *t.* 731;—*Roxb. H. B. p.* 13.—N. prostrata (gallinacea,) *Pers.*—Teganium procumbens, *Schmid; icon.* 67, *t.* 18.) ⊙ Sandy places near the sea, Peru. Fl. largish, pale blue, dark-purple streaked, March; fr. April.

3. *paradoxa*, Lindl. (*B. Reg.* 10, *t.* 865;—*Spreng. syst. c. p. p.* 67;—*G. Don's Mill. dict.* 4, p. 479.—not Sims.) ⊙ Chili, on the sea shore, about Conception. Fl. large, pale blue, with a whitish centre, March.

4. *tenella*, Lindl. (*Hort. soc. trans.* 7, *p.* 252;—*G. Don's Mill. dict.* 4, *p.* 479.—N. paradoxa, *Sims.*;—*B. M.* 52, *t.* 2604, excl. syn. Lindl.) ⊙ Chili. Fl. large, pale blue, with a whitish-sulphur-coloured centre, March.

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* *Nolana spathulata*, Ruiz. and Pav. ⊙ Peru.—*N. coronata*, Ruiz. and Pav. ⊙ Peru.—*N. inflata*, Ruiz. and Pav. ⊙ Peru, near Cumana.—*N. revoluta*, Ruiz. and Pav. ⊙ Peru.—*Dichondra repens*, Forst. ♃. America. N. Holland. Van Diemen's Land. Taong-Dong. Ava.—*D. caroliniana*, Michx. ♃. New Orleans.—*D. sericea*, Swz. ♃. Jamaica. Mexico.—*D. argentea*, Willd. ♃. Mexico.

ORDER CLXX.—CUSCUTACEÆ, Lindl. Nat. Syst. p. 230.

Twining, parasitical, leafless herbs, with 1 genus, (*Cuscuta*,) and about 30 species; viz. 12 for S. America, Mexico, and the W. Indies; 3 for Europe; 2 for New Holland (1 also Indian); 2 for S. Africa; 1 for Caucasus; 1 for China; 1 for Persia; 1 for N. America, and 7 for the E. Indies. The latter have been found in Nepal, the Khassya Mountains, Bengal, both Peninsulas of India, and Cochin China.

CUSCUTA, L. (*Spreng. syst.* 9, *p.* 527, *No.* 1010; *G. Don's Mill. dict.* 4, *p.* 303.) *Dodder.*

1. *reflexa*, Roxb. (*Corom.* 2, *t.* 104; *fl. ind.* 1, *p.* 446; *ed. Carey*, 1, *p.* 466;—*Spreng. syst.* 1, *p.* 864;—*G. Don's Mill. dict.* 4, *p.* 305;—*J. Grah. Cat. B. pl. p.* 134, excl. syn. Hook.) হলদী আলগোসা লতা *Huldee-algosa-luta.* ⊙ Coromandel. The Concans. Mahableshwur. Guzerat. Bengal, (Serampore, Silhet.) Parasitic on trees and shrubs. Fl. small, white, Feb. and March; fr. April.
2. *sulcata*, Roxb. (*fl. ind.* 1, *p.* 447; *ed. Carey*, 1, *p.* 467;—*Spreng. syst.* 1, *p.* 864;—*G. Don's Mill. dict.* 4, *p.* 305;—*J. Grah. Cat. B. pl. p.* 134.) ⊙ Martaban. Bombay. Bengal, (Serampore, Silhet.) Adhering to Amarantus oleraceus, L., and some other plants during the cold season. Fl. small, white, March; fr. April.
3. *capitata*, Roxb. (*fl. ind.* 1, *p.* 448; *ed. Carey*, 1, *p.* 468;—*Spreng. syst.* 1, *p.* 864;—*G. Don's Mill. dict.* 4, *p.* 305.) আলগোসা *Algosa.* ⊙ Bengal, (Serampore.) Growing on the lower part of the stems of Crotalaria juncea. Fl. small, white, Feb. and March; fr. April and May.
4. *aggregata*, Roxb. (*fl. ind.* 1, *p.* 447; *ed. Carey* 1, *p.* 467.) ⊙ Accidentally introduced into H. C. G. amongst flax-seed from Bagdad,—and there flowering in March. (*Roxb.*)

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* *C. monogyna*, Vahl. ⊙ Levant.—*C. australis*, R. Br. ⊙ New Holland.—*C. carinata*, R. Br. ⊙ New Holland. Cochin China.—*C. corymbosa*,

Ruiz. and Pav. ⊙ Peru.—*C. odorata*, Ruiz. and Pav. ⊙ Lima.—*C. grandiflora*, H. B. and Kth. ⊙ *Sta* Fé de Bogota.—*C. americana*, L. ⊙ Jamaica.—*C. jalapensis*, Schlecht. ♃. Mexico.—*C. Hookeri*, Swt. (C. reflexa β. verrucosa, Hook exot. fl. t. 150.) ⊙ Coromandel. Mysore.—*C. macrantha*, G. Don. (C. grandiflora, Wall. Cat; not H. B. and Kth.) ⊙ Nepal.

ORDER CLXXI.—CONVOLVULACEÆ, R. Br.—Lindl. Nat. Syst. p. 231.

THE BINDWEED TRIBE.

Herbs or shrubs, usually twining, rarely creeping, or erect, by Lindl. referred to 28 genera. Of these, though much underrating, Spreng. syst. enumerates about 150 for S. America, Mexico and the W. Indies; 18 for Europe; 16 for N. America; 8 for N. Africa; 6 for Guinea; 7 for the Canaries; 5 for Siberia; 4 for E. Africa; 4 for the Mascarenhas Islands; 2 for Madagascar; 4 for Arabia; 4 for China; 3 for Japan; 3 for Tauria; 2 for the Orient; 1 for Dahuria; 1 for Persia; and 1 for the Azores. Many are common to several parts of the world. In S. Africa, excluding Falkia, Retzia, Lonchostoma and Cuscuta, have been found 23 species, (*Harvey*); in N. Holland and the South Sea Islands more than 50; (R. Br.) and in the E. Indies, according to Choisy, 130; viz. 5 of *Rivea;* 31 of *Argyreia*, (including A. floribunda, Wall.); 1 of *Blinkworthia;* 2 of *Moorcroftia;* 2 of *Quamoclit;* 3 of *Batatas;* 3 of *Pharbitis;* 3-4 of *Calonyction;* 2 of *Lepistemon;* 53 of *Ipomoea;* 6 of *Convolvulus;* 4 of *Aniseia;* 1 of *Calystegia;* 1 of *Hewittia;* 1 of *Skinnera;* 4 of *Porana;* 2 of *Neuropeltis;* 4 of *Breweria;* 1 of *Cressa;* and 2 of *Evolvulus.* They are to be found everywhere both in the mountains and plains, but most abundantly on the latter.

"Their roots abound in an acrid milky juice, which is strongly purgative; this quality depends upon a peculiar resin, which is the active principle of the Jalap, the Scammony, and the others whose roots possess similar qualities." (*Lindl.*)

Rivea, Choisy. (*G. Don's Mill. dict.* 4, *p.* 253.)

1. *tiliæfolia*, Choisy. (*G. Don. l. c.;—J. Grah. Cat. B. pl. p.* 127.—Convolvulus tiliæfolius, *Desrouss. in Lam. dict.* 3. *p.* 544.—C. gangeticus, *Roxb. fl. ind.* 1, *p.* 467; *ed. Carey*, 2, *p.* 46.—Ipomoea tiliæfolia, *Röm. and Sch.*—I. gangetica, *Swt.*—I. campanulata, *L.;* not *Lour.*) ♄ ⌒ Philippine Islands. Both Peninsulas of India. Bengal, (Serampore.) Mauritius. C. G. H. W. Indies. Peru. Fl. very large, pale rose-coloured, tinged with purple, with a dark purple eye. C. S.; fr. H. S. β. *leucantha.* Flowers white.

2. *ornata*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 254.—Lettsomia ornata, *Roxb. fl. ind.* 1, *p.* 496 ; *ed. Carey*, 2, *p.* 86.—Argyreia ornata, *Swt.* —Convolvulus candicans. *Roth.* ; not hb. Willd.) ♄ ⌒ Coromandel. Monghir. Cawnpore. Nepal. Fl. very large, pure white, with a pale greenish eye, R. S. ; fr. C. S.

3. *Bona nox*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 254.—Lettsomia Bona nox, *Roxb. fl. ind.* 1, *p.* 494 ; *ed. Carey*, 2, *p.* 84.—Argyreia Bona nox, *Swt.*—Rivea fragrans, *Nimmo* ;—*J. Grah. Cat. B. pl. p.* 127.) কলমী লতা *Kulmee-luta. Clove-scented creeper. Midnapore creeper.* ♄ ⌒. The Concans. Guzerat. Bengal, (Serampore, Midnapore.) Fl. large, pure white, expanding at sun-set, and perfurming the air to a considerable distance with a fragrance resembling that of the finest cloves, R. S. ; fr. C. S. *Leaves* used by the natives in their curries.

ARGYREIA, Lour. (*G. Don's Mill. dict.* 4, *p.* 254.)

1. *speciosa*, Swt. (*G. Don. l. c.* ;—*J. Grah. Cat. B. pl. p.* 128.—Convolvulus speciosus, *L. suppl. p.* 137, excl. the country.—C. nervosus, *Burm. ind. t.* 20, *f.* 1.—Ipomoea speciosa, *Pers.* ;—*B. M.* 51, *t.* 2446. —Lettsomia nervosa, *Roxb. fl. ind.* 1, *p.* 488 ; *ed. Carey*, 2, *p.* 78.— L. speciosa, *Roxb. H. B. p.* 13 ;—*Rheed.* 11, *t.* 61.) বিচ তাড়ক *Bich-taruka* ♄ ⌒ Coromandel. Malabar-hill, Malabar. Deccan. Bengal, (Serampore.) Hindoosthan. Deyra Dhoon. Java. Isle of France. Fl. large, deep rose-coloured, R. and. C. S. ; fr. March. The upper side of the leaves is used by natives to act as a discutient ; the under, or white side, as a maturant. (*Dr. Gibson.*)

2. *zeylanica*, (A. pomacea, *Choisy. G. Don's Mill. dict.* 4, *p.* 255, excl. Lettsomia strigosa, *Roxb.*, Ipomoea strigosa, *Roth.* and Convolvulus capitatus, *Vahl.*—Lettsomia pomacea, *Roxb. H. B. p.* 13 ;—*fl. ind.* 1, *p.* 493 ; *ed. Carey*, 2, *p.* 83.—Ipomoea zeylanica, *Gärtn. fr.* 2, *p.* 482, *t.* 178, *f.* 1.) ♄ ⌒ Mysore. Ceylon. Dindygul. Fl. large, rose-coloured. In H. C. G. fl. from May till Nov., fr. C. S. (*Roxb.*)

3. *splendens*, Swt. (*G. Don's Mill. dict.* 4, *p.* 255 ;—*J. Grah. Cat. B. pl. p.* 128.—Lettsomia splendens, *Roxb. fl. ind.* 1, *p.* 487 ; *ed. Carey*, 2, *p.* 75.—Convolvulus splendens, *Horn. hort. hafn. suppl. p.* 123.— Ipomoea splendens, *Sims.* ; *B. M.* 53, *t.* 2628.) L. ♄ ⌒ Chittagong. Fl. large, pale rose-coloured, with a white eye. R. and C. S. ; fr. H. S.

4. *cuneata*, Ker. (*B. Reg.* 8, *t.* 661 ;—*G. Don's Mill. dict.* 4, *p.* 255.— *J. Grah. Cat. B. pl. p.* 128.—Lettsomia cuneata, *Roxb. fl. ind.* 1, *p.* 491 ; *ed. Carey*, 2, *p.* 81.—Convolvulus cuneatus, *Willd.*—Ipomoea atrosanguinea, *Sims.* ;—*B. M.* 47, *t.* 2170.) ♄ ⌒ Mysore, Mawul districts, above the Ghauts. Fl. large, crimson, C. S. ; fr. March.

5. *laurifolia*, (A. elliptica, *Choisy* ;—*G. Don's Mill. dict.* 4, *p.* 255 ;—*J. Grah. Cat. B. pl. p.* 128.—Convolvulus ellipticus, *Spreng.*—Ipomoea elliptica, *Roth.*—Convolvulus laurifolius, *Roxb. H. B.* (1814,) *p.* 13.— *fl. ind.* 1, *p.* 470 ; *ed. Carey*, 2, *p.* 50.—Ipomoea laurifolia, *Swt.*) ♄ ⌒

Ceylon. Mysore. Common on the Ghauts. Mahableshwur. Taong-Dong. Lower Nepal. Fl. middle-sized, rose-coloured, with a dark-purple eye, Nov. and Dec.; fr. March.

6. *argentea*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 255.—Lettsomia argentea, *Roxb. fl. ind.* 1, *p.* 489; *ed. Carey*, 2, *p.* 79.) ছোট বিচ তাড়ক *Chhota-bich-taruka.* ♄ ⌒ Chittagong. Calcutta, (Serampore). Silhet. Fl. large, deep rose-coloured, R. S.; fr. C. S.

7. *multiflora*, (A. Roxburghii, *Choisy, G. Don's Mill. dict.* 4, *p.* 255.—Ipomea Roxburghii, *Sweet.*—I. multiflora, *Roxb. H. B.* (1814,) *p.* 84;—*fl. ind.* 1, *p.* 499; *ed. Carey*, 2, *p.* 89;—not Röm. and Sch.) ♄ ⌒ Bengal. Fl. very large, rose-coloured, with a bright red eye, C. S.; fr. H. S.

8. *malabarica*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 256;—*J. Grah. Cat. B. pl. p.* 128, excl. syn. Roxb.—Convolvulus malabaricus, *L.*; not Roxb.—Ipomoea malabarica, *Röm. and Sch;—Rheed.* 11, *t.* 51.) ♄ ⌒ Cochin China. Java. Mysore. Common on the Ghauts. Mahim woods. Fl. largish, cream-coloured, with a dark purple eye. Has been introduced into H. C. G.? *Root* cathartic. (*Vaupell.*)

9. *Wallichii*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 256.—Convolvulus erythrocarpus, *Wall. Cat.*) ♄ ⌣ Taong-Dong. Fl. large, rose-coloured, C. S.

10. *capitata*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 256.—Convolvulus capitiformis, *Poir.*—C. capitatus, *Vahl.*—Ipomoea capitata, *Röm. and Sch.*—Lettsomia strigosa, *Roxb. fl. ind.* 1, *p.* 491; *ed. Carey*, 2, *p.* 80;—*H. B. p.* 13.—Ipomoea trichotoma, *Bl. bijdr. p.* 717.) ♄ ⌒ Java. Tavoy. Madras. Silhet. Goalpara. Fl. large, rose-coloured, with a purple eye, Oct. and Nov.; fr. H. S.

11. *setosa*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 256.—Lettsomia setosa, *Roxb. fl. ind.* 1, *p.* 490; *ed. Carey*, 2, *p.* 80.—Convolvulus strigosus, *Spreng.*—Ipomoea strigosa, *Roth.*) ♄ ⌒ Northern Circars. Sukanaghur. Lower Nepal. Island of Timor. Fl. largish, rose-coloured, Dec. and January; fr. March.

12. *aggregata*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 257;—*J. Grah. Cat. B. pl. p.* 128.—Lettsomia aggregata, *Roxb. fl. ind.* 1, *p.* 488; *ed. Carey*, 2, *p.* 76.—Convolvulus orixensis, Röttl.—C. imbricatus, *Spreng.*—Ipomoea imbricata, *Roth.*) ♄ ⌒ Ceylon. Coromandel. Mysore. Orissa. Taong-Dong. Ava. Fl. smallish, pale rose-coloured, C. S.; fr. Feb. and March.

13. *cymosa*, Swt. (*G. Don's Mill. dict.* 4, *p.* 257.—Lettsomia cymosa, *Roxb. fl. ind.* 1, *p.* 492; *ed. Carey*, 2, *p.* 82.) ♄ ⌒ Mountains of Malabar. Fl. large, rose-coloured. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

14. *acuta*, Lour. (*G. Don's Mill. dict.* 4, *p.* 257;—*J. Grah. Cat. B. pl. p.* 128.—A. festiva, *Wall. pl. as. rar.* 1, *t.* 76.) ♄ ⌒ China. Fl. large, white, Sept.; fr. January.

15. *floribunda*, Wall. MSS. In H. C. G.

QUAMOCLIT, Tournef. (*G. Don's Mill. dict.* 4, *p.* 258.)

1. *phoeniceum*, Choisy. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 129.—Ipomoea phoenicea, *Roxb. fl. ind.* 1, *p.* 502; *ed. Carey*, 2, *p.* 92.—Convolvulus phoeniceus, *Spreng.*—Ipomoea angularis, *Willd.?*) ⊙ ◡ Moluccas. Coromandel. Bengal. Fl. large, bright scarlet, C. S.; fr. H. S.
2. *coccineum*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 258.—Ipomoea coccinea, *L.*; *Roxb. H. B. p.* 14;—*B. M.* 7, *t.* 221.—Convolvulus coccineus, *Spreng.*) ⊙ ◡ St. Domingo. New Spain. Carolina. Fl. largish, scarlet, tinged with orange, C. S.; fr. H. S.
3. *hederifolium*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 259.—Ipomoea hederifolia, *L.*—Convolvulus hederifolius, *Spreng.*) ⊙ W. Indies. Fl. large, violaceous, C. S.; fr. H. S.
4. *pennatum*, (Q. vulgare, Choisy. *G. Don's Mill. dict.* 4, *p.* 260;—*J. Grah. Cat. B. pl. p.* 129.—Ipomoea Quamoclit, *L.*;—*B. M.* 7, *t.* 244; *Lam. ill. t.* 104, *f.* 1;—*Roxb. fl. ind.* 1, *p.* 503; *ed. Carey*, 2, *p.* 93.—Convolvulus pennatus, *Desrouss.*—C. Quamoclit, *Spreng.*—C. pennatifolius, *Salisb*;—*Rheed.* 11, *t.* 60;—*Rumph.* 5, *t.* 155, *f.* 2.) লাল কামলতা *Lal-kamaluta.* ⊙ ◠ North and South America. Mauritius. E. Indies, northwards as far as Deyra-Dhoon. Fl. largish, scarlet. R. S.; fr. C. S.

   β. *rubrum*; fl. deep-red. রক্ত কামলতা *Rukto-kamaluta.*

   γ. *album*; fl. white, tinged at base with green. শ্বেত কামলতা *Shwet-kamaluta.*

BATATAS, Rumph. (*G. Don's Mill. dict.* 4, *p.* 260.)

1. *edulis*, Choisy. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 129.—Convolvulus Batatas, *Michx.*;—*L.*; *Roxb. fl. ind.* 1, *p.* 483; *ed. Carey*, 2, *p.* 69.—Ipomoea Batatas, *Lam.*, excl. syn. Feuillée.—Convolvulus esculentus, *Spreng.*—C. edulis, *Thunb.*—Ipomoea Catesbæi, *Meyer.*) *Sweet* or *Spanish Potatoe.* ♃ ෴ East Indies. Cultivated every where within the tropics. Fl. largish, pale rose-coloured, with a purple eye, Feb. and March; fr. C. S.

   a. erythrorrhiza; Tubers red. লাল শকরকন্দ আলু *Lal-shukarkundo-aloo.*

   β. *leurcorrhiza*; Tubers white. সফেদ শকরকন্দ আলু *Sufed-shukar-kundo-aloo.* The red variety is always preferred, and is in general cultivation all over the warmer parts of Asia.

2. *paniculata*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 261;—*J. Grah. Cat. B. pl. p.* 129.—Convolvulus paniculatus, *L.*;—*Schum. pl. guin. p.* 94;—*Roxb. fl. ind.* 1, *p.* 478; *ed. Carey*, 2, *p.* 63.—Ipomoea paniculata, *R. Br.*;—*B. Reg.* 1, *t.* 62; not Burm.—I. mauritiana, *Jacq. hort. schönbr.* 2, *t.* 200.—I. gossypifolia, *Willd. enum.*—I. eriosperma, *Beauv.*—I. quinqueloba, *Willd.*;—*Röm. and Sch.*—I. insignis, *Andr.*; *B. Repos. t.* 636;—*B. Reg.* 1, *t.* 75;—*B. M.* 43, *t.* 1790.—Convolvulus gossypifolius, *Spreng.*—C. insignis, *Spreng.*—C. roseus, *H. B. and*

Kth.—Rheed. 11, *t.* 49.) হুঁই কুমড়া *Bhooin-Koomra.* ♃ ⌒ New Holland. Java. Guinea. Cayenne. Banks of the Orinoco. Both Peninsulas of India. Bengal, (Serampore.) Silhet. Assam. Fl. large, rose-coloured, with a dark purple eye, C. S.; fr. H. S. *Root* cathartic, and as such used by the natives. Cattle eat it. (*Roxb.*)

3. *pentaphylla,* Choisy. (*G. Don's. Mill. dict.* 4, *p.* 261;—*J. Grah. Cat. B. pl. p.* 129;—Convolvulus pentaphyllus, *Roy;—L. amœn;—Schum. pl. guin.;—Roxb. H. B. p.* 14.—C. aphyllus, *Viviani.*—C. munitus, *Wight. ill. ind. bot. p.* 17, *t.* 7.—C. hirsutus, *Roxb. fl. ind.* 1, *p.* 479; *ed. Carey,* 2, *p.* 65.—Ipomoea pentaphylla, *Jacq. icon. rar. t.* 319.—I. pilosa, *Cav. icon.* 4, *t.* 323.) ⊙ ⌒ Sandwich and Friendly Islands. W. Indies. S. America. Guinea. Mauritius. Bourbon. Hindoostan. Peninsula of India. Fl. largish, white, R. S.; fr. C. S.

4. *cissoïdes,* Choisy. (*G. Don's Mill. dict.* 4, *p.* 261.—Convolvulus cissoïdes, *Vahl.*—C. calycinus, *H. B. and Kth.*) ⊙ ⌒ Tropical America. Cultivated in H. C. G. (*Choisy.*)

5. *viscida,* (Convolvulus viscidus, *Roxb. H. B. p.* 14;—not Lindl. Herb.) ♃ ⌒ W. Indies. Fl. middle-sized, pure white. C. S.; fr. H. S.

Pharbitis, Choisy. (*G. Don's Mill. dict.* 4, *p.* 262.)

1. *purpurea,* (P. hispida, *Choisy;—G. Don. l. c.*—Convolvulus purpureus, *L.; Roxb. H. B. p.* 13;—*H. B. and Kth.*—C. mutabilis, *Salisb.*—C. glandulifer, *Spreng.*—Ipomoea purpurea, *Lam.*—I. hispida, *Zuccag.*—I. Zuccagni. *Röm and Sch.*—I. glandulifera, *Ruiz. and Pav.*—I. intermedia, *Schult.*—I. disclor, *Spreng.*—Convolvulus discolor, *Roxb. H. B. p.* 14.) ⊙ ⌒ S. America. Cultivated in gardens. Fl. large, C. S.; fr. H. S.

   α. *purpurea;* (Convolvulus purpureus, *B. M.* 4, *t.* 113.) Fl. light purple coloured.

   β. *violacea;* Fl. violet.

   γ. *elata;* (Convolvulus purpureus, var. elatior, *B. M.* 25, *t.* 1005.) Fl. white, with 5 crimson, blue edged spots.)

   δ. *varia;* (Convolvulus purpureus, var. varius, *B. M.* 41, *t.* 1682.) Fl. striped with blue and red.

   ε. *leucantha;* Fl. white.

2. *Nil.* Choisy. (*G. Don's Mill. dict.* 4, *p* 262;—*J. Grah. Cat. B. pl. p.* 130, excl. all the syn. except. Roxb. and B. Reg. 4, t. 276.—Convolvulus Nil. *L.*—Ipomoea Nil. *Roth.*—I. cærulea, *Kön.;—Roxb. fl. ind.* 1, *p.* 501; *ed. Carey,* 2, *p.* 91;—*B. Reg.* 4, *t.* 276.) নীল কলমী *Neel-kulmee.* ⊙ Found every where within the tropics, both in America, Africa, and Asia. Common in most parts of India, (Serampore.) Fl. large pale blue, R. S.; fr. C. S. *Seeds* sold in the native druggist's shops, under the name of *Kala-dana,* as an effectual, quickly operating, and safe cathartic. Thirty to forty grains of the seeds, previously roasted gently, and powdered, make a sufficient dose for an adult. (*Roxb.*)

3. *coerulescens*, Choisy. (Pharbitis Nil. β. coerulescens, *G. Don's Mill. dict.* 4, *p.* 262.—Ipomoea coerulescens, *Roxb. fl. ind.* 1, *p.* 500; *ed. Carey*, 2, *p.* 90.) ♃. ⌒ Native place uncertain. Fl. large, lively pale-blue in the morning, gradually growing darker, C. S.; fr. H. S.

4. *hederacea*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 263.—Ipomoea hederacea, *L.; Jacq. icon. rar.* 1, *t.* 36;—*R. Br.; B. Reg.* 1, *t.* 85.) ⊙ ⌒ N. America. Mexico. S. America. New Holland. Fl. large, bluish-violet, March and April; fr. R. S.

5. *diversifolia*, Lindl. (*B. Reg.* 23, *t.* 1988.) ⊙ ⌒ Very like P. purpurea and hederacea.

CALONYCTION, Choisy. (*G. Don's Mill. dict.* 4, *p.* 263.)

1. *speciosum*, Choisy. (*G. Don. l. c.* excl. syn. Sweet.—Ipomoea Bona nox, *L.; B.* M. 20, *t.* 752.—Convolvulus Bona nox, *Spreng.;*—*Sloane. jam. p.* 55, *hist.* 1, *p.* 151, *t.* 96, *f.* 1.) ♃. ⌣ Tropical America. Fl. very large, white, fragrant, and fr. nearly throughout the year.

2. *Roxburghii*, G. Don. (*Mill. dict.* 4, *p.* 263;—*J. Grah. Cat. B. pl. p.* 130.—C. speciosum, α. Choisy.—Ipomoea grandiflora, *Roxb. fl. ind.* 1, *p.* 497; *ed. Carey*, 2, *p.* 87, not L.—*Rheed.* 11, *t.* 8.) দুদিয়া কলমী *Doodiya-kulmee.* ডাল কলমী *Dal-kulmee.* ♃. ⌒ Both Peninsulas of India. Bengal, (Serampore.) Tirhoot. Assam. Nepal. Fl. very large, white, fragrant, and fr. nearly the whole year.
β. *muricatum.*

3. *muricatum*, G. Don. (*Mill. dict.* 4, *p.* 264;—*J. Grah. Cat. B. pl. p.* 130.—C. speciosum, β. *Choisy.*—Ipomoea muricata, *Jacq. hort. schönbr.* 3, *t.* 323;—*Roxb. fl. ind.* 1, *p.* 499; *ed. Carey*, 2, *p.* 89.—Convolvulus muricatus, *L. Mant.*—Ipomoea Bona nox, β. purpurascens, *Ker.; B. Reg.* 4, *t.* 290.) ⊙ ⌒ Persia. Peninsula of India. Common along the Ganges, from Behar and Tirhoot up to Cawnpore. Lucknow. Deyra-Dhoon. Fl. large, pale rose-coloured, with a dark purple eye, R. S.; fr. C. S. Tumid *peduncles* used for culinary purposes. (*Nimmo.*)

4. *grandiflorum*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 264.—Convolvulus grandiflorus, *L. suppl. p.* 136;—*Andr. B. Repos. t.* 403.—Convolvulus latiflorus, *Desrouss.*—Ipomoea latiflora, *Röm. and Sch.*) ♃. ⌒ W. Indies. Fl. very large, pure white, R. and C. S.; fr. H. S.

IPOMOEA, L. (*G. Don's Mill. dict.* 4, *p.* 265.)

A.—Stems creeping.

1. *reptans*, Poir. (*Dict. suppl.* 3, *p.* 460;—*G. Don. l. c.;*—*J. Grah. Cat, B. pl. p.* 130.—Convolvulus reptans, *L.*—C. repens, *Vahl.; Willd.;* —not L. nor Lam.—*Roxb. fl. ind.* 1, *p,* 482; *ed. Carey*, 2, *p.* 68.—Ipomoea reptans, β. aquatica, *Poir.*—I. repens, *Roth.; Bl.;* not Lam. —I. aquatica, *Forsk;—Rheed.* 11, *t.* 52;—*Rumph.* 5, *t.* 155, *f.* 1.) কলমী শাক *Kulmee-shak.* ⊙ Coromandel. The Concans. Moluccas.

China. Arabia. Bengal, (Serampore, Silhet.) Assam. Senegal. Fl. large, pale rose-coloured, with a dark purple eye, R. and C. S.; fr. C. S. The *tender tops* and *leaves* much esteemed and eaten by the natives of all ranks. (*Roxb.*)

2. *Pes capræ*, Sweet. (*G. Don's Mill. dict.* 4, *p.* 265;—*J. Grah. Cat. B. pl. p.* 130.—I. maritima, *R. Br.*;—*B. Reg.* 4, *t.* 319.—I. orbicularis, *Ell.*—I. carnosa, *R. Br.*—I. brasiliensis, *Meyer.*—I. biloba. *Forsk.*—Convolvulus Pes capræ, *L.*;—*Roxb. fl. ind.* 1, *p.* 486; *ed. Carey*, 2, *p.* 74.—C. maritimus, *Desrouss.*—C. bilobatus, *Roxb. fl. ind.* 1, *p.* 485; *ed. Carey*, 2, *p*, 73.—C. brasiliensis, *L.*;—*Willd.*; *Roxb. H. B. p.* 14.—C. bauhiniæfolius, *Salisb.*;—*Rheed.* 11, *t.* 57;—*Rumph.* 5, *t.* 159, *f.* 1.) ছাগল খুড়ি *Chhagul-khoori*, দোপাটী লতা *Dopatee-lata.* ♃. Sandwich Islands. New Holland. S. America. Bourbon. Arabia. Mauritius. Ceylon. Moluccas. China. Both Peninsulas of India. Soonderbuns. Fl. large, purplish rose-coloured, fr. nearly the whole year. Very useful on the sandy beaches, where it grows, in helping to bind the loose soil, and in time rendering it sufficiently stable to bear grass. Goats, horses and rabbits eat it. (*Roxb.*) The natives boil the *leaves* and apply them externally as an anodyne in cases of colic. (*J. Grah.*)

3. *repens*, Lam. (I. rugosa, *Choisy. G. Don's Mill. dict.* 4, *p.* 266;—*J. Grah. Cat. B. pl. p.* 131.—Convolvulus rugosus, *Rottl. Willd.*;—*Röm. and Sch.*—C. flagelliformis, *Roxb. fl. ind.* 1, *p.* 481; *ed. Carey*, 2, *p.* 68.—C. Bedalamba, *Spreng.*—I. Bedalamboe, *Röm. and Sch.*;—*Rheed.* 11, *t*, 58.) ♃. Mysore. Bombay. Fl. large, pure white, and fr. most part of the year.

4. *gangetica*, (I. reniformis, *Choisy*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 131.—Convolvulus reniformis, *Roxb. fl. ind.* 1, *p.* 481; *ed. Carey*, 2, *p.* 67.—C. gangeticus, *L. Amoen.*—Evolvulus emarginatus, *Burm. ind. t.* 30, *f.* 1.—E. gangeticus, *L. spec.*) ভূঁই কামড়ি *Bhooin-kamri.* ♃. Peninsula of India. Umerapura. Bengal, (Serampore.) Fl. small, bright yellow, and fr. C. S.

B.—Stems erect or diffuse, not twining.

5. *tridentata*, Roth. (*G. Don's Mill. dict.* 4, *p.* 266, excl. Convolvulus viscidus, Roxb.;—*J. Grah. Cat. B. pl. p.* 131.—Convolvulus tridentatus, *L.*;—*Roxb. fl. ind.* 1, *p.* 475; *ed. Carey*, 2, *p.* 56.—Evolvulus tridentatus, *L.*;—*Burm. ind. t.* 16, *f.* 3;—*Rheed.* 11, *t.* 65.) ⊙ Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Fl. small, yellow, R. S.; fr. C. S.

6. *filiformis*, (I. filicaulis, *Bl. Bijdr. p.* 721;—*G. Don's Mill dict.* 4, *p.* 266.—*J. Grah. Cat. B. pl. p.* 131.—Convolvulus filicaulis, *Vahl. Schum. pl. guin. p.* 92.—C. hastatus, *Desrouss.*—C. simplex, *Pers.*—C. Medium, *Lour.*;—*Ait.*—*Roxb. fl. ind.* 1, *p.* 474; *ed. Carey*, 2, *p.* 56; not L.—C. filiformis, *Thunb.*—C. denticulatus, *Desrouss*;—*Spreng.*—C. angustifolius, *Desrouss*;—*Vahl.*—Ipomoea denticulata, *R. Br.*;

—*B. Reg.* 4, *t.* 317.—I. angustifolia, *Jacq. icon. rar. t.* 317;—*Rheed*, 11, *t.* 55.) ⊙ ♂ China. Japan. New Holland. America. C. G. H. Guinea. Ceylon. Java. Both Peninsulas of India. Bengal, (Serampore.) Fl. middle-sized, straw-coloured, more yellow at the plaits, with a crimson eye, R. and C. S.; fr. C. S.

C.—Stems twining.

7. *Turpethum* R. Br. (*G. Don's Mill. dict.* 4, *p.* 268;—*B. Reg.* 4, *t.* 279;—*Roth.*;—*J. Grah. Cat. B. pl. p.* 131.—Convolvulus Turpethum, *L.*;—*B. M.* 46, *t.* 2093;—*Roxb. fl. ind.* 1, *p.* 476; *ed. Carey*, 2, *p.* 57;—*Hook. bot. misc.* 3, *p.* 297;—*Wight. ill. suppl. t.* 88.) তেউড়ী *Teooree.* ত্রিবৃৎ *Trivrit.* ♃. New Holland. Otaheite. Friendly and Marianne Islands. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Fl. largish, white, with a tinge of cream-colour, R. and C. S.; fr. H. S. Bark of the *root* employed by the natives as a purgative, which they use fresh, rubbed up with milk. About six inches in length of a root as thick as the little finger is reckoned a common dose. Cattle do not eat the plant. (*Roxb.*)

8. *lactea*, Wall. Assam.

9. *straminea*, Wall. Mergui. Dec. 1840.

10. *pileata*, Roxb. (*fl. ind.* 1, *p.* 504; *ed. Carey*, 2, *p.* 94;—*G. Don's Mill. dict.* 4, *p.* 269.—Convolvulus pileatus, *Spreng.*) ♃. China. Fl. middle-sized, rose-coloured. In H. C. G. fl. and fr. Nov. to Feb. (*Roxb.*)

11. *atropurpurea*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 269.—Convolvulus atropurpureus, *Wall.*;—*Roxb. fl. ind*; *ed. Carey*, 2, *p.* 54;—*pl. as. rar.* 1, *p.* 43.—Ipomoea sphærocephala, *D. Don. pr. fl. nep. p.* 98, excl. syn. Roxb.) ♃. Nepal. Gossain Than. Fl. large, deep-purple. Has fl. in H. C. G.?

12. *barbata*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 269.—Convolvulus barbatus, *Wall. pl. as. rar.* 2, *t.* 155.) ♄ Rangoon. Banks of the Irrawaddi. Fl. largish, pale-yellowish. Has been introduced into H. C. G. Fl.?

13. *hispida*, (I. sessiliflora, *Roth. G. Don's Mill. dict.* 4, *p.* 269;—*Wight. icon.* 1, *t.* 169;—*Röm. and Sch.*—Convolvulus sessiliflorus, *Spreng.*—C. hispidus, *Vahl.*—C. sphærocephalus, *Roxb. fl. ind.* 1, *p.* 472; *ed. Carey*, 2, *p.* 53.—C. tamnifolius, *Klein*; *Röm and Sch.*—Ipomoea sphærocephala, *Swt.*;—not D. Don.) ⊙ Arcot. Dindygul. Madras. Prome. Interior of Bengal, (Serampore, Bhaugulpore, Monghir.) Nepal. Cape Verde Islands. Fl. small, rose-coloured, C. S.; fr. H. S.
β. *leucantha*; fl. white. (Serampore.)

14. *polyanthes*, Röm. and Sch. (*G. Don's Mill. dict.* 4, *p.* 270.—Convolvulus umbellatus, *L. sp. p.* 221;—*Roxb. H. B. p.* 14; not Ipomoea umbellata, L. sp. p. 227.) ♃. Martinique. St. Domingo. Jamaica. Cuba, about Havannah. Fl. smallish, bright yellow, with a tinge of green, C. S.; fr. H. S.

15. *ochracea*, G. Don. (*Mill. dict.* 4, *p.* 270.—Convolvulus ochraceus, *Lindl. B. Reg.* 13, *t.* 1060.) ⊙ Gold Coast of Guinea. Fl. largish, orange-yellow, with a dark purple eye, and fr. C. S.
16. *sidæfolia*, Choisy;—(*G. Don's Mill. dict.* 4, *p.* 272.—Convolvulus sidæfolius, *H. B. and Kth.*—C. domingensis, *Desrouss.*—C. multiflorus, *H. B. and Kth. not Mill.*—C. lævicaulis, *Willd.*—C. proliferus, *Willd.*—Ipomoea ceylanica, *Moon.*) ♄ W. Indies, Mexico, Ceylon.—Fl. largish, white, with a yellow bottom, and marked with five black spots, C. S.; fr. H. S.
17. *staphylina*, Röm. and Sch. (*G. Don's Mill. dict.* 4, *p.* 272.—Ipomoea racemosa, *Roth.;* not Poir.—C. malabaricus, *Roxb. fl. ind.* 1, *p.* 469; *ed. Carey*, 2, *p.* 49, excl. syn. L. and Rheed.—C. racemosus, *Röttl. and Auct.*; not Spreng.—C. Kleinii, *Spreng.*) ♄ Coromandel. Penang. Fl. smallish, pale rose-coloured, with a dark purple eye, C. S.; fr H. S.
18. *cymosa*, Röm. and Sch. (*G. Don's Mill. dict.* 4, *p.* 472.—Convolvulus cymosus, *Desrouss.*—C. bifidus, β. *Vahl.*—C. blandus, *Roxb. fl. ind.* 1, *p.* 470; *ed. Carey*, 2, *p.* 50.—Ipomoea bifida, *Roth.*—I. Heynei, *Röm. and Sch.*—I. blanda, *Sweet.*—*Rumph.* 5, *t.* 158.) ♃ Moluccas. Circar Mountains. Fl. large, pure white, Feb. and March; fr. C. S.
β. *pilosa*, Choisy. (*G. Don. l. c.*—Convolvulus cymosus, β. *Desrouss.*—C. bifidus, *Vahl.*—C. Rothii, *Spreng.*—C. lævis mas, *Rumph.* 5, *p.* 431.—C. pentagonus, *Roxb. fl. ind.* 1, *p.* 485; *ed. Carey*, 2, *p.* 72.—Ipomoea bifida, *Röm. and Sch.*—I. Rothii, *Röm. and Sch.*—I. cymosa, *Roth.; Bl.*—Convolvulus blandus, β. pubescens, *Roxb. fl. ind.* 1, *p.* 469; *ed. Carey*, 2, *p.* 49.) Fl. like those in *a*.
19. *striata*, Pers. (*Syn.* 1, *p*, 183.—I. sepiaria, Kön.;—*Roxb. fl. ind.* 1, *p.* 499; *ed. Carey*, 2, *p.* 90;—*G. Don's Mill. dict.* 4, *p.* 273;—*J. Grah. Cat. B. pl. p.* 131.—C. marginatus, *Desrouss. in Lam.* 3, *p.* 558.—C. striatus, *Vahl.*—*Rheed.* 11, *t.* 53.) China. Java. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) ♃. বন কলমী *Bun-kulmee.* Fl. largish, pale rose-coloured, with a dark purple eye, and fr. the whole year,
20. *carnea*, Jacq. (*Amer. p.* 26, *t.* 18, *ed. pict. t.* 25;—*G. Don's Mill. dict.* 4, *p.* 273;—*Roxb. H. B. p.* 14.—Convolvulus carneus, *Spreng.*) ♃. America, near Carthagena. Fl. very large, pale-red, C. S.; fr. H. S.
21. *corymbosa*, Roth. (*G. Don's Mill. dict.* 4, *p.* 274.—Convolvulus corymbosus, *L.;*—*Desrouss.*—*Plum. ed. Burm. t.* 89, *f.* 2. MSS. *vol.* 2, *t.* 50.) ♃. Tropical America. Fl. largish, white, C. S.; fr. H. S.
22. *cordifolia*, Carey's MSS. ♄. Seeds, inscribed "Jamaica," sent to the late Dr. Carey by the Hon'ble and Revd. Mr. Herbert in 1822. Except the under page of the base of the leaves, glabrous. *Leaves* cordate-ovate, emarginate, mucronulate, soft, membranous, underneath pale, 1-5 inches both ways. *Petioles* $3\frac{1}{2}$ inches, exstipulate. *Peduncles* axillary, solitary, terete, longer than the petiole, shorter

than the leaf, at apex bearing a trichotomous, many-flowered cyme. *Pedicels* clavate, 4-5 lines. *Bractes* lanceolate, acute, fleshy, 1-2 lines. *Bracteoles* at the base of each pedicel generally 3, ovate, acute, minute, with the bractes caducous. *Sepals* 5, adpressed, obtuse, mucronulate, white-membrane margined, unequal; the three inner ones largest, 4-5 lines. *Corol* campanulate, one inch, pure white, roundedly and emarginately 5-lobulate, with the fasciæ straw-coloured, and the tube internally dark-olive. *Filaments* white, at base orange, and covered with capitellate down. Anthers white. Fl. Dec. and Jan.; fr. 0.

23. *obscura*, Ker. (*B. Reg.* 3, *t.* 239;—*Röm. and Sch.*;—*G. Don's Mill. dict.* 4, *p.* 274;—*J. Grah. Cat. B. pl. p.* 131.—I. solanifolia, *Burm. ind. p.* 49.—I. insuavis, *Bl.*—Convolvulus obscurus, *L.*;—*Roxb. fl. ind.* 1, *p.* 472; *ed. Carey*, 2, *p.* 52.) ⊙ Both Peninsulas of India. Bengal, (Serampore.) &c. Fl. largish, white, with cream-coloured plicæ, and a dark-purple eye, R. and C. S.; fr. H. S.

24. *stipulacea*, Swt. (*G. Don's Mill. dict.* 4, *p.* 276;—*J. Grah. Cat. B. pl. p.* 131.—Convolvulus stipulaceus, *Roxb. fl. ind.* 1, *p.* 484; *ed. Carey*, 2, *p.* 71; not of others.) ♃. The Concans. Chittagong. Fl. large, pure white, March and April; fr. R. S.

25. *platanifolia*, Röm. and Sch. (*Syst.* 4, *p.* 220, excl. syn. Pluk.—I. fastigiata, *Swt.*;—*G. Don's Mill. dict.* 4, *p.* 276;—*J. Grah. Cat. B. pl. p.* 131.—I. cymosa, *Meyer*, not Röm. and Sch.—Convolvulus platanifolius, *Vahl. symb.* 3, *p.* 26.—C. fastigiatus, *Roxb. fl. ind.* 1, *p.* 468; *ed. Carey*, 2, *p.* 48.—C. essequibensis, *Spreng.*) ♃. W. Indies. Guiana. The Concans. Bengal, (Serampore.) Fl. large, purple, Feb. and March; fr. H. S.

26. *pilosa*, Swt. (*G. Don's Mill. dict.* 4, *p.* 276.—Convolvulus pilosus, *Roxb. fl. ind.* 1, *p.* 473; *ed. Carey*, 2, *p.* 55.) Mysore. Bengal. ⊙ Fl. small, rose-coloured, C, S.; fr. H. S.

27. *dentata*, Willd. MSS. (I. chryseïdes, *Ker.*; *B. Reg.* 4, *t.* 270;—*G. Don's Mill. dict.* 4, *p.* 277;—*Wight. icon. t.* 157.—Convolvulus dentatus, *Vahl. symb.* 3, *p.* 25;—*Roxb. fl. ind.* 1, *p.* 477; *ed. Carey*, 2, *p.* 62.—C. chryseïdes, *Spreng.*) ♃. China. Timor. Both Peninsulas of India. Bengal, (Serampore.) Assam. Fl. small, yellow, C. S.; fr. H. S.

28. *Wightii*, Choisy. (*G. Don's Mill. dict.* 4, *p.* 277.—Convolvulus Wightii, *Wall. pl. as. rar.* 2, *t.* 171.) ♄ Neelgherries. Fl. large, purplish-rose-coloured, C. S.

29. *lacunosa*, L. (*G. Don's Mill. dict.* 4, *p.* 277;—*Roxb. H. B. p.* 14.—Convolvulus lacunosus, *Spreng.*) ♃. Virginia. Carolina. Florida. Banks of the Arkansas. Fl. largish, white, with a purplish rim, C. S.

30. *macrorrhiza*, Michx. (*G. Don's Mill. dict.* 4, *p.* 277.—I. Jalapa, *Pursh.*; *B. Reg.* 4, *t.* 342.—I. Michauxii, *Sweet.*) ♄ Georgia and Florida, near the sea-shore. Fl. very large, white.

β. *rubra.* (Convolvulus Jalapa, *Lam.*;—*B. M.* 38, *t.* 1572.—C. Jalapa, β. rosea, *Ker. B. Reg.* 8, *t.* 521.) ♄ Mexico, about Vera Cruz. Fl. very large, deep rose-coloured, R. and C. S. This variety, has been introduced into Bengal by Lord Auckland. It is not the true Jalap Plant, nor does it, according to Dr. O'Shaughnessy's chemical analysis, contain any resin. The above-mentioned white-flowered variety, *a.* the Jalap of N. America, (Convolvulus macrorrhizos, *Roxb. H. B. p.* 14,) was introduced into H. C. G. in 1801, but had not flowered up to 1814.

The true Jalap of the shops is the product of *I. Jalapa,* Schiede and Deppe. (*G. Don's Mill. dict.* 4, *p.* 271;—*I. Purga,* Wenderoth.—Convolvulus Jalapa, *Houst. MSS. in Mill. dict. ed.* 8, *No.* 31;—*Linn. Mant.* 1, *p.* 43; not of others.—Ipomoea Schiedeana, *Zucc.*) It is a native of Mexico, in the woods of Chiconquiaco, from whence it is brought to Vera Cruz by the inhabitants of Jalapa or Xalapa. The plant is called Purga and Laschachne in Mexico, it abounds also on the eastern slope of the Cordillera of Anahuac, in the same latitude with the *Vanilla aromatica,* Swz, and *Smilax Sarsaparilla,* L., and in its wild state delighting in a dry sandy soil.

31. *trichophora,* Ell. (*fl. car.* 2, *p.* 260;—*G. Don's Mill. dict.* 4, *p.* 278.—I. carolina, *Pursh.* not L.—Convolvulus carolinus, *Michx. fl. amer. bor.* 1, *p.* 139;—*Desrouss. in Lam. dict.* 3, *p.* 563;—*Roxb. H. B. p.* 14.—C. trichophorus, *Spreng.*) ⊙ Hedges in Carolina. Fl. large, pale purple, and fr. Feb. and March.

32. *coptica,* Roth. (*G. Don's Mill. dict.* 4, *p.* 278;—*J. Grah. Cat. B, pl. p.* 132.—I. Brunetii, *Perr. cat. MSS. No.* 150.—Convolvulus copticus, *L. Mant. p.* 559;—*Roxb. fl. ind.* 1, *p.* 477; *ed. Carey,* 2, *p.* 62.—C. stipulatus, *Desrouss. in Lam. dict.* 3, *p.* 546.) ⊙ Senegal. Coromandel. Open glades about Kandalla. Fl. small, white, and fr. C. S.

33. *heptaphylla* (I. pulchella, *Roth.; nov. spec. p.* 115;—*Wight. icon.* 1, *t.* 156;—*G. Don's Mill. dict.* 4, *p.* 279, excl. Convolvulus dasyspermus, Spreng. and C. digitatus, Roxb.; not I. pulchella, G. Don. l. c. p. 276.—Convolvulus bellus, *Spreng.*—C. heptaphyllus, *Roxb. H. B.* (1814,) *p.* 14; *fl. ind.* 1, *p.* 480; *ed. Carey,* 2, *p.* 66.) ♃. Pagamew. Segaen. Fl. small, pale rose-coloured, with a purple eye, R. and C. S.; fr. C. S.

34. *tuberculata,* Röm. and Sch. (*G. Don's Mill. dict.* 4, *p,* 279.—I. stipulata, *Jacq. schönbr.* 2, *t.* 199.—I. frutescens, *Desf. cat, par. p.* 74.—I. tuberculosa, *Desf. cat. par. p.* 74.—Convolvulus tuberculatus, *Desrouss. in Lam. dict.* 3, *p.* 545;—*H. B. and. Kth. nov. gen.* 3, *p.* 108.—C. digitatus, *Roxb. fl. ind.* 1, *p.* 479; *ed. Carey,* 2, *p.* 65.) ♃. China. Sandwich-Islands. S. America. Peninsula of India. Fl. very large, white-lilac-purple, nearly the whole year; fr. H. S.

35. *pedata,* (I. dasysperma, *Jacq. ecl.* 1, (1816,) *t.* 89;—*G. Don's Mill. dict.* 4, *p.* 279.—I. tuberculata, *Ker.* 1, *t.* 86, anno. 1815, not Röm.

and Sch.—Convolvulus dasyspermus, *Spreng. syst.* 1, *p.* 591,—1825, C. pedatus, *Roxb. H. B.* (1814,) *p.* 14; *fl. ind.* 1, *p*, 478; *ed. Carey*, 2, *p.* 63.) ⊙ New Holland. China. Katmandu. Peninsula of India. Fl. large, deep cream-coloured tinged with yellow, and with a lilac-purple eye, C. S.; fr. H. S.

36. *sinuata*, Ort. (*Dec.* 7, *p.* 84;—*G. Don's Mill. dict.* 4, *p.* 4, *p.* 279.—*J. Grah. Cat. B. pl. p.* 132, excl. syn. R. Br.—I. dissecta, *Pursh.* not. R. Br.—Convolvulus dissectus, *L. Mant. p.* 204;—*Michx.*;—*Jacq. obs.* 2, *p.* 4, *t.* 28;—*hort. vind. t.* 159;—*Roxb. H. B. p.* 14.) ♃. Georgia. Florida. Cuba. Fl. largish, white, with a dark red eye, C. S.; fr. H. S.

37. *mucronata*, Forst. (I pendula, *R. Br. pr. p.* 486;—*B. Reg.* 8, *p.* 632;—*G. Don's Mill. dict.* 4, *p.* 279.—Convolvulus pendulus, *Spreng.*—C. mucronatus, *Forst. pr. No.* 79.) ♃. New Holland. New Caledonia. Island of Tanna. Introduced in 1840.

38. *palmata*, Forsk. (*Descript. p.* 43;—*G. Don's Mill. dict.* 4, *p.* 280.—I. cairica, *Swt.*—Convolvulus cairicus, *L.*; *Vahl.*; *Willd.*; *B. M.* 19, *t.* 699.—C. ægyptius, *Berl. ægypt. p.* 73, *t.* 74.) ♃. Egypt. Guinea. Sandwich Islands. Fl. very large, lilac, with a dark purple eye and star, C. S.; fr H. S.

39. *Pes tigridis*, L. (*G. Don's Mill. dict.* 4, *p.* 280;—*Roxb. fl. ind.* 1, *p.* 503; *ed. Carey*, 2, *p.* 93;—*J. Grah. Cat. B. pl. p.* 132.—Convolvulus Pes tigridis, *Spreng.*—C. bryoniæfolius, *Salisb.*; not Sims.—Convolvuloïdes palmata, *Mönch*;—*Rheed.* 11, *t.* 59.) লাঙ্গলি লতা *Languli-luta.* ⊙ Manilla. Java. Ceylon. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. smallish, white, R. and C. S.; fr. C. S.

β. *rubra*; flowers red, smaller.

40. *vitifolia*, Swt. (*Bl. bijdr. p.* 709;—*G. Don's Mill. dict.* 4, *p.* 281;—*J. Grah. Cat. B. pl. p.* 132.—Convolvulus vitifolius, *L.*; *Burm. ind. t.* 18, *f.* 1;—*Roxb. fl. ind.* 1, *p.* 476; *ed. Carey*, 2, *p.* 61.) ♃. Travancore. Malabar Hill. Bombay. Silhet. Assam. Fl. large, bright sulphur, Jan. and Feb.; fr. H. S.

41. *tuberosa*, L. (*G. Don's Mill. dict.* 4, *p.* 281;—*Jacq. amer. p.* 37;—*J. Grah. Cat. B. pl. p.* 132;—*B. Reg.* 9, *t.* 768;—*Roxb. H. B. p.* 14; not Lour.—Convolvulus tuberosus, *Spreng. syst.* 1, *p.* 591.) ♄ Tropical America. Bourbon. Mauritius. Ceylon. Madras. Bombay. Fl. large, bright yellow, fragrant, C. S.; fr. H. S.

42. *hepaticifolia*, L. (*Burm. ind. t.* 20, *f.* 1;—*G. Don's Mill. dict.* 4, *p.* 281.—Convolvulus hepaticifolius, *Spreng. syst.* 1, *p.* 594.) ⊙ Ceylon. China. Fl. largish, purplish, C. S.; fr. H. S.

43. *Buchanani*, Choisy, (*G. Don's. Mill. dict.* 4, *p.* 281.—I. salicifolia, *Roxb. fl. ind.* 1, *p.* 498; *ed. Carey*, 2, *p.* 88; not Convolvulus salicifolius, Desrouss.) ⊙ Bengal, (Rungpore.) Fl. large white, R. S; fr. C. S. Introduced into H. C. G. by Dr. Buchanan.

44. *lactea*, Wall. MSS. (Convolvulus lacteus, *Wall. in Grah. Cat. B. pl. p.* 133.) In H. C. G.

CONVOLVULUS, L. (*G. Don's Mill. dict.* 4. *p.* 283.)

1. *tricolor*, L. (*Hort. cliff. p.* 19 ;—*G. Don. o. c. p.* 286 ;—*B. M.* 1, *t.* 27.) ⊙ Sicily. Spain. Portugal. N. Africa. Fl. large, blue, with a whitish star, and yellowish throat, Feb. ; fr. April.
2. *siculus*, L. (*Spec. p.* 223 ;—*G. Don's Mill. dict.* 4, *p.* 287 ;—*B. Reg.* 6, *p.* 445.) ⊙ ⌒ Sicily. Spain. Morea. Candia. N. Africa. Teneriffe. Fl. small, blue, with a white throat, Feb. and March.
3. *arvensis*, L. (*Spec. p.* 218 ;—*G. Don's Mill. dict.* 4, *p.* 288 ;—*E. B.* 5, *t.* 312 ;—*Roxb. H. B. p.* 14 ;—*J. Grah. Cat. B. pl. p.* 132.—C. chinensis, *Ker.* ;—*B. Reg.* 4, *t.* 322 ;—C. Malcolmi, *Roxb. fl. ind.* 1, *p.* 474 ; *ed. Carey*, 2, *p.* 55.) ♃. ⌒ Sandy fields and road-sides in Europe. China. Cochin China. Persia. Virginia. The Deccan in India. &c. Fl. large, deep rose-coloured, sweet scented, C. S.
4. *bryoniæfolius*, Sims. (*B. M.* 24, *t.* 943 ;—*G. Don's Mill. dict.* 4, *p.* 291.) ♃. ⌒ China. Fl. large, deep rose-coloured, with a crimson eye. C, S. ; fr. H. S.
5. *macrocarpus*, L. (*Spec.* 222 ;—*G. Don's Mill. dict.* 4, *p.* 292.) ⊙ Martinique. Fl. large, purplish, Feb. ; fr. April.
6. *parviflorus*, Vahl. (*Symb.* 3, *p.* 29 ;—*G. Don's Mill. dict.* 4, *p.* 293 ;—*Roxb. fl. ind.* 1, *p.* 471 ; *ed. Carey*, 2, *p.* 51.—Ipomoea paniculata, *Burm. ind.* 21, *t.* 3.—I. parviflora, *Pers.*) ⊙ ⌒ Java. Timor. Both Peninsulas of India. Fl. small, pure white, C. S. ; fr. H. S.

ANISEIA, Choisy. (*G. Don's Mill. dict.* 4, *p.* 295.)

1. *calycina*, Choisy. (*G. Don. l. c.*—Convolvulus calycinus, *Roxb. fl. ind.* 1. *p.* 471 ; *ed. Carey*, 2, *p.* 51.—C. Hardwickii, *Spreng. syst. c. p. p.* 60.) ♃. ⌒ Cawnpore. Fl. small, pure white, and fr. C. S.

CALYSTEGIA, R. Br. (*pr. p.* 483 ; *G. Don's Mill. dict.* 4, *p.* 296.)

1. *hederacea*, Wall. (*Roxb. fl. ind. ; ed. Carey*, 2, *p.* 94 ;—*G. Don. o. c. p.* 297 ;—Convolvulus Wallichianus, *Spreng.* ♃. ⌣ Nepal. Upper Assam. Penang. Fl. large, rose-coloured. Has been introduced into H. C. G. Fl.?

HEWITTIA, W. and A. (*Madr. Journ.*—Shuteria, *Choisy* ;—*G. Don's Mill. dict. p*, 297,—not W. and A.)

1. *bicolor*. W. and A. (*l. c.*—Shuteria bicolor, *Choisy* ;—*G. Don. l. c.*—*J. Grah. Cat. B. pl. p.* 133.—Convolvulus bicolor, *Vahl. symb.* 3, *p.* 25 ;—*Roxb. fl. ind.* 1, *p.* 475 ; *ed Carey*, 2, *p.* 57 ;—*B. M.* 48, *t.* 2205. —C. sublobatus, *L. suppl.*—C. involucratus, *Ker.* ;—*B. Reg.* 4, *t.* 318, not Beauv.—Ipomoea bicolor, *Swt. hort. brit. p.* 287.—Calystegia Keriana, *Swt. l. c.*) জরদ কলমী *Jurud-kulmee*. ♃. ⌒ Both Peninsulas of India, Bengal, (Serampore,) &c. Fl. largish, yellowish, with a dark-purple eye, R. and C. S. ; fr. H. S.

SKINNERIA, Choisy. (*G. Don's Mill. dict. p.* 297.)

1. *cæspitosa*, Choisy. (*G. Don. l. c.*—Convolvulus cæspitosus, *Roxb. fl. ind.* 1, *p.* 483 ; *ed. Carey*, 2, *p.* 70.) ⊙ ♂. ⌒ Penang. Tavoy. Rungpore. Dinagepore. Assam. Fl. small, very pale yellow, C. S. ; fr. H. S.

JACQUEMONTIA, Choisy.

1. *hastigera*, Bojer. ⌒ Mauritius. Nov. 1838.

PORANA, Burm. (*G. Don's Mill. dict.* 4, *p.* 298.)

1. *volubilis*, L. (*Burm. ind. t.* 21, *f.* 1 ;—*Lam. ill. t.* 186 ;—*G. Don. l. c.* ; *Roxb. fl. ind.* 1, *p.* 465 ; *ed. Carey*, 2, *p.* 40.—*Wight. icon.* 2, *t.* 347.) ♄ ⌒ Bengal. Timor. Straits of Sunda. Fl. small, white, C. S. ; fr. H. S.

2. *racemosa*, Roxb. (*fl. ind.* 1, *p.* 466 ; *ed. Carey*, 2, *p.* 41 ;—*G. Don's Mill. dict.* 4, *p.* 298 ;—*J. Grah. Cat. B. pl. p.* 133.—P. dichotoma, *Buch.* ;—*G. Don. pr. fl. nep. p.* 99.—P. cordifolia, *Ledeb. ind. sem. hort. dorp. suppl.* 1824, *p.* 6.—Dinetus racemosus, *Swt. brit. fl. gard. t.* 127.) ⊙ ⌒ Khassya Mountains. Nepal. Kemaon. Fl. small, white, Feb. and March ; fr. H. S.

3. *paniculata*, Roxb. (*Corom.* 3, *t.* 235 ;—*fl. ind.* 1, *p.* 464 ; *ed. Carey*, 2, *p.* 39 ;—*G. Don's Mill. dict.* 4, *p.* 298.—P. tomentosa, *Lesch. MSS.* —Dinetus paniculatus, *Swt. hort. brit. p.* 289.) L. ♄ ⌒ Banks of the Irawaddi. Rajmahl. Gour. Silhet. Hurdwar. Saharunpore. Kemaon. Fl. small, white, C. S. ; fr. H. S.

4. *grandiflora*, Wall. (*Roxb. fl. ind.* ; *ed. Carey*, 2, *p.* 41 ;—*G. Don's Mill. dict.* 4, *p.* 298.) ⊙ ⌒ Nepal. Fl. large, rose-coloured. Has been introduced in H. C. G. Fl. ?

BREWERIA, R. Br. (*G. Don's Mill. dict.* 4, *p.* 299.)

1. *Roxburghii*, Choisy. (*G. Don. l. c.*—Convolvulus semidigynus, *Roxb. fl. ind.* 1, *p.* 468 ; *ed. Carey*, 2, *p.* 47.) ♄ ⌒ Fl. large, pure white, C. S. ; fr. H. S. Travancore. Courtallum. Penang. Amherst. Tavoy. Silhet. Shreenugur Mountains.

CRESSA, L. (*G. Don's Mill. dict.* 4, *p.* 300.)

1. *indica*, Retz. (*G. Don. l. c.* ;—*Roxb. fl. ind.* 2, *p.* 72 ;—*J. Grah. Cat. B. pl.* 133. excl. syn.) ⊙ Rice-fields, Bombay, after the rains. Sandy salt lands near the sea, Coromandel, &c. Fl. small, white, R. S. ; fr. C. S.

EVOLVULUS, L. (*G. Don's Mill. dict.* 4, *p.* 300.)

1. *alsinoïdes*, L. (*fl. zeyl. p.* 76 ;—*spec. p.* 392 ;—*G. Don's Mill. dict.* 4, *p.* 300 ;—*R. Br. pr. p.* 489 ;—*Roxb. fl. ind.* 2, *p.* 105.—E. hirsutus, *Lam. dict.* 3, *p.* 538 ;—*ill. t.* 216, *f.* 2 ;—*G. Don. l. c.* ;—*Roxb. l. c. p.* 166 ;—*J. Grah. Cat. B. pl. p.* 133 ; not H. B. and Kth.—*Rheed.* 11, *t.* 64 ;—*Burm. zeyl. t.* 6, *f.* 1, *and t.* 9, *f.* 1.) ♃. Straits of Sunda. Ceylon. Both Peninsulas of India. Bengal, (Serampore, Monghir.) Kemaon. New Holland. Fl. small, blue, with a white tube, C. S. ; fr. H. S.

2. *pilosus*, Roxb. (*fl. ind.* 2, *p.* 106.) ♃. Hindoostan. Fl. small, white C. S. (*Roxb.*)

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* *Rivea hypocrateriformis*, Choisy. ♄ ⌒ Malabar hill, Bombay, &c.—*R. ? obtecta*, Choisy. ♄ ⌒ Tavoy. Amherst.—*Maripa scandens*, Aubl.

ħ ⌒ Guiana.—M. *erecta*, Meyer. ħ Guiana.—*Argyreia bracteata*, Choisy. ħ ⌒ Peninsula of India.—*A. Leschenaultii*, Choisy. ħ ⌒ Neelgherries.—*A. neelgherryana*, Choisy. ħ ⌒ Neelgherries.—*A. populifolia*, Choisy. ħ ⌒ Assam.—*A. fulgens*, Choisy. ħ ⌒ Quilon.—*A. pallida*, Choisy. ħ ⌒ Paghamew.—*A. venusta*, Choisy. ħ ⌒ Assam.—*A. ampla*, Choisy. ħ ⌒ Nepal.—*A. barbigera*, Choisy. ħ ⌒ Prome.—*A. rubicunda*, Choisy. ħ⌒ Toang-Dong.—*A. tomentosa*, Choisy. ħ ⌒ Banks of the Irrawaddi.—*Blinkworthia lycioïdes*, Choisy. ħ ⌒ Banks of the Irrawaddi.—*Humbertia madagascariensis*, Lam. ħ Madagascar.—*Moorcroftia adpressa*, Choisy. ħ ⌒ Penang.—*M. penangiana*, Choisy. ħ ⌒ Penang.—*Quamoclit vitifolium*, G. Don. ⊙ ⌒ S. America.—*Q. eustachianum*, G. Don. ⊙ ⌒ Mexico.—*Q. hastigerum*, G. Don. ♃. Mexico.—*Q. sanguineum*, G. Don. ♃. ◡ Sta. Cruz.—*Q. dichotomum*, G. Don. ⊙ ⌒ New Granada.—*Q. grandiflorum*, G. Don. ♃. ⌒ Mexico.—*Batatas heterophylla*, G. Don. ♃. ⌒ Cuba. New Spain.—*B. bignonioïdes*, G. Don. ♃. ⌒ Cayenne.—*Pharbitis insularis*, Choisy. ⊙ ⌒ New Holland.—*P. barbata*, G. Don. ⊙ Virginia.—*P. villosa*, G. Don, ⊙ Peru.—*Calonyction asperum*, Choisy. ♂. ⌒ Silhet.—*Exogonum bracteatum*, Choisy. ♃. ⌒ New Spain.—*E. repandum*, Choisy. ħ ⌒ Martinique.—*Lepistemon Wallichii*, Choisy. ♃. ⌒ Silhet.—*Ipomoea arborescens*, G. Don. ħ ⌒ Mexico.—*I. macrantha*, G. Don. ħ ⌒ Mexico.—*I. triquetra*, Röm. and Sch. ♃. ⌒ W. Indies.—*I. sulphurea*, G. Don. ♃. ⌒ Mexico.—*I. petaloïdea*, Choisy. ♃. ⌒ Prome.—*I. bufalina*, Choisy. ħ ⌒ Bourbon.—*I. tamnifolia*, L. ⊙ ⌒ Carolina.—*I. polycarpa*, G. Don. ♃. ⌒ Mexico.—*I. albivenia*, G. Don. ħ ⌒ Algoa Bay.—*I. leucantha*, Jacq. ⊙ ⌒ Tropical America.—*I. curasavica*, Röm. and Sch. ♃. ⌒ Curaçao.—*I. Jalapa*, Schiede and Deppe. ♃. ⌒ Mexico.—*I. rubens*, Choisy. ♃. ⌒ Assam.—*I. cumanensis*, G. Don. ♃. ⌒ Cumana.—*I. violacea*, L. ⊙ ⌒ S. America.—*I. racemosa*, Poir. ħ ⌒ St. Domingo.—*I. ferruginea*, Röm. and Sch. ħ ⌒ S. America.—*I. Hookeri*, G. Don. ħ ⌒ Mexico.—*I. pudibunda*, G. Don. ⊙ ⌒ St. Vincent.—*I. gemella*, Roth. ⊙ ⌒ Tranquebar.—*I. aristolochiæfolia*, G. Don. ♃. ⌒ Caraccas.—*I. Funis*, Cham. and Schlecht. ħ ⌒ Mexico.—*I. mutabilis*, Ker. ħ ⌒ S. America.—*I. platensis*, Ker. ♃. ⌒ Banks of the Plata.—*I. setosa*, Ker. ♃. ⌒ Brazil.—*Jacquemontia cærulea*, Choisy. ♃. Guinea.—*J. azureae*, Choisy. S. America.—*Convolvulus pluricaulis*, Choisy. ♃. Bhaugulpore.—*C. trichosanthes*, Michx. ⊙ Virginia.—*C. pentapetaloïdes*, L. ⊙ S. Europe.—*C. undulatus*, Cav. ⊙ S. Europe. N. Africa.—*C. elongatus*, Willd. ⊙ Canaries.—*C. littoralis*, L. ♃. Portorico.—*C. Mechoacanna*, Willd. ♃. ⌒ New Spain.—*C. acetosellæfolius*, Desrouss. ♃. ⌒ Mauritius.—*C. Scammonia*, L. ♃. ⌒ Syria.—*C. quinqueflorus*, Vahl. ♃. ⌒ Bourbon.—*C. calystegioïdes*, Choisy. ♃. ⌒ China.—*Aniseia Medium*. Choisy. ⊙ Java.—*A. uniflora*, Choisy. ♃. Assam. The Concans.—*A. barlerioïdes*, Choisy. ♃. Goruckpore. Kemaon.—

A. salicifolia, Choisy. ♃. St. Domingo.—*A. martinicensis*, Choisy. ♃. Martinique.—*Polymeria calycina*, R. Br. ♃. Tropical New Holland. —*P. pusilla*, R. Br. ♃. Tropical New Holland.—*P. quadrivalvis*, R. Br. ♃. Tropical New Holland.—*Porana acuminata*, Beauv. ♄ ⌒ Guinea.—*Neuropeltis ovata*, Wall. ♄ Amherst.—*Prevostea sericea*, G. Don. ♄ ⌒ New Granada.—*P. heterantha*, G. Don. ♃. ⌒ Brazil.—*Breweria elegans*, Choisy. ♃. Prome.—*B. pannosa*, R. Br. ♃. Tropical New Holland.—*B. media*, R. Br. ♃. Tropical New Holland.—*B. linearis*, R. Br. ♃. Tropical New Holland.—*Bonamia madagascariensis*, Pet. Th. ♄ Madagascar.—*Cressa cretica*, L. ⊙ Candia.—*C. australis*, R. Br. ⊙ Tropical New Holland.—*Evolvulus nummularius*, L. ♃. Jamaica.—*E. linifolius*, L. ⊙ Tropical New Holland. Jamaica.—*E. sericeus*, Swz. ⊙ Jamaica. Mexico.—*E. latifolius*, Ker. ♃. Brazil.

ORDER CLXXII.—POLEMONIACEÆ,—Lindl. Nat. Syst. p. 232.

THE GREEK VALERIAN TRIBE.

Herbs,with an occasionally climbing stem, by Lindl. referred to 16 genera. Of these, according to Spreng. syst. B. Reg. (19, t. 1622, app.) B. M., and Royl, ill., about 60 species have been found in N. America, especially California; 22 in S. America and Mexico; 2 in Siberia; 1 in Europe and N. Asia; and 3-4 in the Himalayas. The latter are *Polemonium coeruleum* and *gracile*, if both really are distinct; and? *Cyananthus integer* and *lobatus*.— " Properties none, or unknown." (*Lindl.*)

POLEMONIUM, L. (*G. Don's Mill dict.* 4, *p.* 238.)

1. *cæruleum*, L. (*G. Don. l. c.*;—*E. B.* 1, *p.* 14;—*Roxb. fl. ind.*; *ed. Carey*, 2, *p.* 24.) *Greek Valerian. Jacob's Ladder.* ♃ N. Europe. Siberia. Kemaon. Fl. large, sky-blue, C. S. but very rarely.
2. *mexicanum*, Cervant. (*G. Don's Mill. dict.* 4, *p.* 239;—*B. M.* 6, *t.* 460.) ♃. Mexico. Fl. large, pale-blue, C. S.

GILIA, Ruiz. and Pav. (*G. Don's Mill. dict.* 4, *p.* 244.)

1. *achilleæfolia*, Benth. (*G. Don. o. c. p.* 245;—*B. Reg.* 20, *t.* 1682;—*B. M.* 62, *t.* 3440.) ⊙ California. Fl. small, lilac-blue, March.
2. *capitata*, Dougl. (*G. Don. l. c.*;—*B. M.* 53, *t.* 2698;—*B. Reg.* 14, *t.* 1170.) ⊙ North-west America. Fl. small, blue, March.

COLLOMIA, Nutt. (*G. Don's Mill. dict.* 4, *p.* 246.)

1. *linearis*, Nutt. (*G. Don. l. c.*;—*B. M.* 56, *t.* 2893;—*B. Reg.* 14, *t.* 1166.) ⊙ N. America. Fl. small, rose-coloured, Feb. and March.

CALDASIA, Willd. (*G. Don's Mill. dict.* 4, *p.* 247.)

1. *heterophylla*, Willd. (*G. Don. l. c.*;—*B. Reg.* 2, *t.* 92.—Borplandia geminiflora, *Cav. icon.* 6, *t.* 532.) ⊙ New Spain. Fl. smallish, pale blue, C. S.

* *Phlox Drummondii*, Hook; B. M. 62, t. 3441. ⊙ Texas.—*Linanthus dichotomus*, Benth. ⊙ California.—*Leptosiphon grandiflorus*, Benth. ⊙ California,—*L. androsaceus*, Benth. ⊙ B. Reg. 20, t. 1710;—*L. densiflorus*, Benth. B. Reg. 20, 1725. ⊙ California.—*Fenzlia dianthiflora*, Benth. ⊙ California.—*Gilia tenuiflora*, Benth.; B. Reg. 22, t. 1888. ⊙ California.—G. *tricolor*, Benth; B. Reg. 20, t. 1704. ⊙ California.—*Navarettia pungens*, Lindl. (Gilia pungens, Dougl. B. M. 57, t. 2977.) ⊙ California.—*Löselia coccinea*, G. Don. ♄ Mexico.—*L. cærulea*, G. Don. ♄ Mexico.

ORDER CLXXIII.—COBÆACEÆ, D. Don.—Lindl. Nat. Syst. p. 233.

Climbing shrubs, of 1 genus, containing 2 species, both from S. America and Mexico.—Properties unknown.

* *Cobœa scandens*, Cav. B. M. 22, t. 851. ♄ ◡ Mexico.—*C. macrostemma*, Pav. MSS; B. M. 66, t. 3780. ♄ ◡ Guayaquil.

ORDER CLXXIV.—HYDROLEACEÆ, Kth.—Lindl. Nat. Syst. p. 325.

Herbs or undershrubs, by Lindl, referred to about 7 genera. Of these, Choisy, and Lindl. assign 15 species to S. America; 3 to Carolina and Georgia; 1 to Unalaska; 1 to Madagascar; 1 to S. Africa; and 2 (*Hydrolea*) to the E. Indies. Properties unknown.

HYDROLEA, L. (*G. Don's Mill. dict.* 4, *p.* 249.)

1. *zeylanica*, Vahl. (*Symb.* 2, *p.* 46;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 127.—Nama zeylanica, *L.*;—*Roxb. fl. ind.* 2, *p.* 73.—Steris javana, *L. Mant.*—Steris aquatica, *Burm. ind. t.* 39, *f.* 3;—*Rheed.* 10, *t.* 28.) কাঁখরা *Kankhra.* ⊙ Mexico. Rio Janeiro. Java. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Hindoostan. Lower Nepal. Fl. small, deep blue C. S.; fr. H. S.

WIGANDIA, Kth.

1. *urens*, Kth. (*Nov. gen. and sp.*) 2. Mexico. Peru.

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* *Hydrolea quadrivalvis*, Walt. β. *inermis.* 2. Guiana.—*H. spinosa*, L. B. Reg. 7, t. 566. ♄ S. America.—*Nama undulata*, H. B. and Kth. 2. Mexico.—*N. origanifolia*, H. B. and Kth. ♄ St. Jago.—*N. longiflora*, Choisy. ♄ Mexico.—*Wigandia Kunthii*, Choisy. 2. Mexico.

ORDER CLXXV.—LOBELIACEÆ, Juss.—Lindl. Nat. Syst. p. 235.

Herbs and shrubs, by Lindl. referred to 20 genera. Of these, Spreng. syst. enumerates for S. America, Mexico, and the W. Indies, about 68 species ; for S. Africa, 34 ; for N. Holland, and the South Sea Islands 20 ; for N. America 12 ; for Europe 7 ; for the Mascarenhas Islands 3 ; for Japan 2 ; for China and for Kamtschatka 1. In the E. Indies have been found 1 species of *Piddingtonia ;* and, according to Spreng. and Wall. Cat. and MSS. 14 of *Lobelia*, mostly mountain-plants, from the Himalayas down to Ceylon and the Peninsula of Malacca.

" All dangerous or suspicious, in consequence of the excessive acridity of their milk." (*Lindl.*)

PRATIA, Gaudich, (*G. Don's Mill. dict.* 3, *p.* 699.)

1. *radicans*, G. Don. (*o. c. p.* 700 ;—*J. Grah. Cat. B. pl. p.* 102.—Lobelia radicans, *Willd. spec.* 1, *p.* 948 ;—*Roxb. fl. ind.* 1, *p.* 507 ; *ed. Carey*, 2, *p.* 111 ; not Thunb.) ♃. ⏦ China. Fl. smallish, rose-coloured, sweet-scented, R. and C. S. ; fr. C. S.
2. *Careyana*, (L. radicans var. major, *Carey*, *MSS.*) ⊙ Native place uncertain. Fl. small, white, C. S. ; fr. H. S.

PIDDINGTONIA, Alph. DC.

1. *begonifolia*, Alph. DC. (Pratia begonifolia, *Lindl. ;—B. Reg.* 16, *t.* 1373 ;—*G. Don's Mill. dict.* 3, *p.* 699.—Lobelia begonifolia, *Wall. ; Roxb. fl. ind. ; ed. Carey*, 2, *p.* 115.—L. obliqua, *Buch.;—D. Don. pr. fl. nep. p.* 158.) ♃. Katmandu. Fl. smallish, purplish, C. S.

TUPA, G. Don. (*Mill. dict.* 3, *p.* 700.)

1. *Feuillei*, G. Don. (*l. c.*—Lobelia Tupa, *L. ;—B. M.* 52, *t.* 2552 ;—*B. Reg.* 19. *t.* 1612.) ♃. Chili. Peru. A very poisonous species. Even the smell of the flowers will cause vomiting according to Feuillee, and the milk of it, if by any accident it touches the eyes, occasions blindness, Fl. large, reddish-scarlet. Has been introduced into H. C. G. Fl. ?

LOBELIA, L. (*G. Don's Mill. dict.* 3, *p.* 704.)

1. *persicifolia*, Lam. (*Dict.* 3, *p.* 584 ;—*G. Don. o. c. p.* 707.) ♃. Guadeloupe. Has been introduced into H. C. G. Fl. ?
2. *zeylanica*, L. (*G. Don. Mill. dict.* 3, *p.* 709 ;—*Roxb. fl. ind. ; ed. Carey*, 2, *p.* 113.) ♃. China. Ceylon. Khassya Mountains. Fl. small, purple, C. S.
3. *triangulata*, Roxb. (*H. B. p.* 16.—L. trigona, *Roxb. fl. ind. ; p.* 506 ; *ed. Carey*, 2, *p.* 111 ;—*G. Don's Mill. dict.* 3, *p.* 709.—L. stipularis, *Roth.*) ⊙ Peninsula of India. Prome. Bengal, (Serampore.) Khassya Mountains. Nepal. Kemaon. Fl. small, blue, R. and C. S. ; fr. C. S.
4. *curostos*, (Lobelia robusta, *Wall. MSS. ;*—not Grah.) L. ⊙ Munipore. Fl. 1837. large, white, Jan. and Feb. ; fr. H. S.

* *Pratia hederacea*, Cham. 4. Brazil.—*Tupa salicifolia*, G. Don. (Lobelia gigantea, Smis.; B. M. 32, *t.* 1325.) ♄ Valparaiso.—*Syphocamphylus macranthus*, Pohl. ♄ Rio Janeiro.—*S. canus*, Pohl. ♄ Brazil.—*S. villosulus*, Pohl. 4. Brazil.—*S. longipedunculatus*, Pohl. 4. Rio Janeiro.—*S. surinamensis*, G. Don. (Lobelia surinamensis, L.; B. M. 7, t. 225.) ♄ Surinam.—*S. Berterianus*, G. Don. ♄ ◡ Guadeloupe.—*S. convolvulaceus*, Cham. ♄ ◡ Brazil.—*S. lycioïdes*, Cham. ♄ Brazil.—*Lobelia camporum*, Pohl. ⊙ Brazil.—*L. exaltata*, Schott. 4. Brazil.—*L. thapsoïdes*, Schott. 4. Rio Janeiro.—*L. pauciflora*, H. B. and Kth. 4 Mexico.—*L. rapunculoïdes*, H. B. and Kth. 4. Mexico.—*L. xalapensis*, H. B. and Kth. 4. Mexico.—*L. fenestralis*, Cav. ⊙ Mexico.—*L. inflata*, L. ⊙ Virginia.—*L. nummularioïdes*, Cham. 4. Brazil.—*L. reniformis*, Cham. 4. Brazil.—*L. aquatica*, Cham. 4. Brazil.—*L. Krausii*, Grah. 4. Dominique.—*L. racemosa*, Sims.; B. M. 47, t. 2137. ♄ Rio. Janeiro.—*L. robusta*, Grah. ♄ Hayti.—*L. fulgens*, Willd. 4. Mexico.—*L. splendens*, Willd.; B. R. 1, t. 60. 4. Mexico.—*L. trialata*, Buch. (L. micrantha, Hook. exot fl. t. 144.) 4. Nepal.—*L. nicotianæfolia*, Heyne. ⊙ Bangalore. Kandalla.—*Monopsis conspicua*, Salisb; B. M. 36, t. 1499. ⊙ C. G. H.—*Hippobroma longiflorum*, G. Don. (Lobelia longiflora, Jacq. B. Reg. 14, t. 1200.) 4. Jamaica.—*Clintonia elegans*, Dougl. B. Reg. 15, t. 1241.) N. America.—*Jasione montana* L.; E. B. 13, t. 882. ⊙ N. Africa.

ORDER CLXXVI.—CAMPANULACEÆ, R. Br.—Lindl. Nat. Syst. p. 237.

THE CAMPANULA TRIBE.

Herbs or undershrubs, sometimes climbing, by Lindl. referred to 21 genera. Of the 311 species belonging to this order, only 19 are found in intratropical countries. Alph. DC. remarks, that "it is within the 36° and 47° N. lat. that in our hemisphere the greatest number of species is found; the chain of the Alps, Italy, Greece, Caucasus, the Altai range are their true country. In whatever direction we leave these limits, the number of species rapidly decreases. In the southern hemisphere, the Cape of Good Hope, (lat. 34° S.) is another centre of habitation, containing not fewer than 63 species." (*Lindl.*) In the E. Indies, have, according to Wall. Cat. and Royl. ill., been found 36 species, viz. 1 of *Cephalostigma*, (Banks of the Irrawaddi,) 8 of *Codonopsis*, (Himalayas, one from the rocks of Pingee, on the banks of Irrawaddi,) 2 of *Wahlenbergia*, (one from Nepal; the other from the plains of India,) 24 of *Campanula*, (Himalayas, 1 from the Neelgherries; another from Prome,) and 1 of

Symphiandra. (Himalayas.) In these are included *Codonopsis lurida*, Lindl; *Campanula pallida*, Wall. *C. lanceæfolia*, Roxb. *C. integerrima*, Buch. and *C. ? repens*, Lour.

"Their milky juice is rather acrid, but nevertheless the roots and young shoots of some, particularly of Campanula Rapunculus, L. or Rampion, of Phyteuma spicatum, L., of Canarina Campanula, Lam. &c. are an occasional article of food. The chief value of the order, however, is its beauty." (*Lindl.*)

WAHLENBERGIA, Schrad. (*G. Don's Mill. dict.* 3, *p.* 737.)

1. *capensis*, Alph. DC. (*G. Don. o. c. p.* 738.—Campanula capensis, *L.*;—*B. M.* 20, *t.* 782.—Roella decurrens, *Andr.*; *Bot. repos. t.* 238.) ⊙ C. G. H. Fl. large, externally bluish-green, internally dark-blue at the bottom, greenish just under the lobes, black-spotted within the lobes at the recesses, and the lobes violaceous, Feb. and March.
2. *hederacea*, Alph. DC. (*G. Don's Mill. dict.* 3, *p.* 739.—Campanula hederacea, *L.*; *E. B.* 2, *t.* 73.—C. hederæfolia, *Salisb.*—C. arvatica, *Lag.*—Aikinia hederacea, *Salisb.*—*Schultesia*, Roth.) 2. N. W. Europe. N. America. Fl. smallish, bluish-rose-coloured, C. S.
3. *dehiscens*, Alph. DC. (*G. Don's Mill. dict.* 3, *p.* 740.—Campanula dehiscens, *Roxb. fl. ind.* 1, *p.* 504; *ed. Carey*, 2, *p.* 96;—*J. Grah. Cat. B. pl. p.* 103.) ⊙ Mahableshwur. Bengal, (Serampore.) Khassya Mountains. Nepal. Fl. small, white, Jan. Feb. and March; fr. April.
4. *cernua*, Alph. DC. (*G. Don. l. c.*—Campanula cernua, *Thunb.*) ⊙ C. G. H. Fl. smallish, white and blue, March.
5. *hispidula*, Alph. DC. (*G. Don's Mill. dict.* 3, *p.* 742.—Campanula hispidula, *Thunb*; *L.* excl. syn. Comm. hort, t. 37.) ⊙ C. G. H. Fl. smallish, blue, March.

PHYTEUMA, L. (*G. Don's Mill. dict.* 3, *p.* 746.)

1. *orbiculare*, L. (*G. Don. o. c. p.* 747;—*E. B.* 2, *t.* 142.—P. cordatum, *Vill.*—*B. M.* 36, *t.* 1466.) 2. Europe. Fl. small, purplish-blue, C. S. but very rare.

CAMPANULA, L. (*G. Don's Mill. dict.* 3, *p.* 750.)

1. *laciniata*, L. (*G. Don. o. c. p.* 751.) ⊙ Archipelago. Fl. large, pale blue, March.
2. *Medium*, L. (*G. Don. l. c.*—C. grandiflora, *Lam.*) *Canterbury Bells.* ♂ S. Europe. Caucasus. Tauria. Fl. large, blue, June.
3. *divergens*, Willd. (*G. Don's Mill. dict.* 3, *p.* 754;—*Sweet fl. gard. n. s. t.* 256.—C. spathulata, *Wald. and Kit.* not Sm.—C. nutans, *Vahl.*; *Horn.*—C. cernua, *Hort.* not Thunb.) ♂ Siberia. Hungary. Fl. large, violet blue, June.
4. *glomerata*, L. (*G. Don's Mill. dict.* 3, *p.* 755;—*E. B.* 2, *t.* 90.—C. barbata, *Spreng.*—C. betonicæfolia, *Gilib.*—C. graminifolia, *Willerm.*—C. congesta, *Röm. and Sch.*) 2. Europe. Caucasus. Persia. Altai Mountains. Siberia. Fl. largish, bluish, violet, June.
5. *Trachelium*, L. (*G. Don's Mill. dict.* 3, *p.* 557;—*E. B.* 1. *t.* 12.—C. gantèlèe, *Jaum. St. Hil.*—C. urticifolia, *Schmidt.*—C. cervicaria,

Fuchs.; not L.) 4. Europe. Caucasus. Tauria. Siberia. Fl. large, bluish, violet, May and June.

6. *rapunculoïdes*, L. (*G. Don's Mill. dict.* 3, *p.* 557;—*E. B.* 20, *t.* 1369.—C. nutans, *Lam.*; not Vahl. nor Wald. and Kit.—C. urticifolia, *Turr.* not Schmidt, All. and Willd.—C. trachelium, *Bull*; not L.—C. secunda, *Schmidt.*—C. morifolia, *Salisb.*—C. rigida, *Stokes.*—C. glabricarpa, *Schleich.*) 4. Europe. Caucasus. Siberia. Fl. large, bluish-violet, June and July.

7. *bononiensis*, L. (*G. Don's Mill. dict.* 3, *p.* 757.—C. thaliana, *Wall.*) 4. E. Europe. W. Asia. Italy. Germany. Caucasus. Fl largish, bluish-violet, May and June, or C. S.

8. *rotundifolia*, L. (*G. Don's Mill. dict.* 3, *p.* 759;—*E. B.* 13, *t.* 866.—C. uniflora, *Huds.*; not L.—C. minor, *Lam.*—C. variifolia, *Salisb.*—C. minuta, *Savi.*—C. Scheuchzeri, *Lodd. Bot. Cab. t.* 485; not of others.—C. heterophylla, *Gray.*—C. allophylla, *Rafin.*) 4. Europe. Siberia. N. America. Fl. largish, pale blue, June and July.

9. *pulla*, L. (*G. Don's Mill. dict.* 3, *p.* 760;—*B. M.* 51, *t.* 2492.) 4. Transylvania. Bohemia. Austrian Alps. Fl. largish, indigo-coloured, May and June.

10. *Erinus*, L. (*G. Don's Mill. dict.* 3, *p.* 761;—*Sibth. and Sm. fl. græc. t.* 214.) 4. S. Europe. Fl. small, pale bluish rose-coloured, May and June.

11. *drabæfolia*, Sm. and Sibth. (*fl. græc. t.* 215;—*G. Don's Mill. dict.* 3, *p.* 761.) ⊙ Island of Samos, near Athens. Fl. smallish, white-violaceous, Feb.

12. *fragilis*, Cyril. (*pl. fasc.* 1, *p.* 32, *t.* 11, *f.* 2;—*G. Don's Mill. dict.* 3, *p.* 762;—*B. Reg.* 20, *t.* 1738.—C. diffusa, *Vahl.*—C. cochlearifolia, *Vahl.*—C. crassifolia, *Nees.*) 4. S. Europe. Fl. large, pale blue, May and June.

13. *peregrina*, L. (*G. Don's Mill. dict.* 3, *p.* 763;—*B. M.* 31, *t.* 1257.—C. lanuginosa, *Lam.*; not Willd.—C. hirsutissima, *Guss.*) 4. Mount Lebanon. Aleppo. Fl. large, more or less dark violet, May.

14. *Rapunculus*, L. (*G. Don's Mill. dict.* 3, *p.* 765;—*E. B.* 4, *t.* 283.—C. fastigiata, *Gmel*; not Dufour.—C. coarctata, *Gilib.*—C. esculenta, *Salisb.*—C. elatior, *Link.*—C. glandulosa, *Banks.*) ♂ N. Africa. Europe. Caucasus. Transylvania. Fl. middle-sized, blue, June.

15. *patula*, L. (*G. Don's Mill. dict.* 3, *p.* 765;—*E. B.* 1, *t.* 42.—C. bellidifolia, *Lapeyr.*—C. decurrens, *L.*) ♂ Fl. large, purplish-blue, June.

Specularia, Heist. (*G. Don's Mill. dict.* 3, *p.* 768.)

1. *Speculum*, Alph. DC. (*G. Don. l. c.*—Campanula Speculum, *L.*;—*B. M.* 3, *t.* 102.—Legouzia arvensis, *Durand.*—L. Durandi, *Delarb.*—Prismatocarpus Speculum, *L'Herit.*—Campanula pulchella, *Salisb.*—C. miroir de venus, *Jaume.*—C. cordata, *Visiani.*) ⊙ Europe. Fl. largish, violet blue, Feb. and March; fr. March.

2. *hybrida*, Alph. DC. (*G. Don's Mill. dict.* 3, *p.* 769.—Campanula hybrida, *L.*;—*E. B.* 6, *t.* 375.—Prismatocarpus hybridus, *L'Her.*—P. confertus, *Mönch.*—Legouzia hybrida, *Delarb.*—L. parviflora, *Gray.*) Fl. small, rose-coloured, Feb. and March; fr. March.

Trachelium, L. (*G. Don's Mill. dict.* 3, *p.* 769.)

1. *coeruleum*, L. (*G. Don. l. c.*;—*B. Reg.* 1, *t.* 72.) ♃. S. Europe. Fl. large, violaceous, May.

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* *Cephalostigma paniculatum*, Alph. DC. ♃. Prome. Banks of the Irawaddi.—*Campanumæa javanica*, Bl. ♃. ◡ Humid woods in Java.—*Codonopsis truncata*, Wall. Banks of the Irawaddi.—*C. parviflora*, Wall. Khassya Mountains.—*Canarina campanulata*, Lam.; B. M. 13, t. 444. ♃. Canary Islands.—*Microcodon glomeratum*, Alph. DC. ⊙ C. G. H.—*M. sparsiflorum*, Alph. DC. ⊙ C. G. H.—*Wahlenbergia graminifolia*, Alph. DC. ♃. Sicily.—*W. agrestis*, Alph. DC. ⊙ Nepal.—*Michauxia campanuloïdes*, L'Her. ♂ Levant.—*Campanula sylvatica*, Wall. Nepal.—*C. Alphonsii*, Wall. ♃. Neelgheeries.

ORDER CLXXVII.—SPHENOCLEACEÆ, Martius.—Lindl. Nat. Syst. p. 238.

Comprehends only one genus, and the following marshy herb, whose properties are unknown.

Pongatium, Juss. (*Gen. pl. p.* 423.)

1. *indicum*, Lam. (Sphenoclea zeylanica, *Gärtn.*; *fr.* 1, *p.* 113, *t.* 24, *f.* 5;—*Roxb. fl. ind.* 1, *p.* 507; *ed. Carey*, 2, *p.* 116;—*J. Grah. Cat. B. pl. p.* 248;—*Spreng. syst.* 1, *p.* 622.—Rapania herbacea, *Lour.*—Gartnera Pongati, *Retz. obs.* 6, *p.* 24;—*Rheed.* 2, *t.* 24.) জীল মরিচ *Jeelmurich.* ⊙ Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Hindoosthan. Fl. very small, white; R. and C. S.; fr. C. S.

ORDER CLXXVIII.—STYLIDIACEÆ, Lindl. Nat. Syst. p. 240.

Herbs or undershrubs, by Lindl. referred to 3 genera. Of these 47 species belong to N. Holland and the South Sea Islands, and 1 to Terra del Fuego; 4 species have been found in India, viz. *Stylidium tenellum*, Swz. (Malacca.) *S. uliginosum*, Swz. (Ceylon.) *S. Wightianum*, Wall.; (Peninsula of India,) and S. *Kunthii*, Wall. (Silhet.) Properties unknown.

STYLIDIUM, Swz. (*G. Don's Mill. dict.* 3, *p.* 719.)

1. *tenellum*, R. Br. ? (*pr. p.* 571.—Swz. ?) ⊙ Ditches about Serampore. Fl. small, greenish-lilac, R. S.; fr. C. S.

* *Stylidium eriorrhizon*, R. Br. ♃. Tropical New Holland.—*S. floribundum*, R. Br. ♃. Tropical New Holland.—*S. capillare*, R. Br. Tropical New Holland.—*S. rotundifolium*, R. Br. ♃. Tropical New Holland.—*S. pedunculatum*, R. Br. ♃. Tropical New Holland.

ORDER CLXXIX.—GOODENIACEÆ, Lindl. Nat. Syst. p. 241.

Herbs, rarely shrubs, by Lindl. referred to 9 genera. Of these, 45 species have been found in New Holland and the South Sea Islands; 24 (Cyphia) in S. Africa, (*Hervey,*) and 1 (*Pentaphragma begonifolium*, Wall.) in Penang. Properties unknown.

CYPHIA, Berg. (*G. Don's Mill. dict.* 3, *p.* 718.)

1. *bulbosa*, Berg. (*G. Don. l. c.*—C. capensis, *Gmel.*—Lobelia bulbosa, *L.*—L. Cyphia, *Gmel.*) ♃. C. G. H. Introduced in 1841.

* *Pentaphragma begonifolium*, Wall. ♃. Penang.—*Velleia spathulata*, R. Br. ♃. Tropical New Holland.—*V. pubescens*, R. Br. ♃. Tropical N. Holland.—*Leschenaultia filiformis*, R. Br. ♃. Tropical N. Holland.

ORDER CLXXX.—SCÆVOLACEÆ, Lindl. Nat. Syst. p. 242.

Herbs or shrubs, by Lindl. referred to 4 genera. Of these, 36 species have been discovered in New Holland, and in the South Sea Islands; 1 in the W. Indies; 1 in S. Africa, which is also common to New Holland and Cochin China; and 3 (*Scævola*) in the E. Indies, one also common to Mauritius; another to New Holland, and Cochin China. Properties unknown.

SCÆVOLA, L. (*G. Don's Mill. dict.* 3, *p.* 727.)

1. *Taccada*, Roxb. (*fl. ind.* 1, *p.* 527; *ed. Carey*, 2, *p.* 146;—*G. Don's o. c. p.* 728;—*J. Grah. Cat. B. pl. p.* 103, excl. syn. Bot. Mag.—Lobelia Taccada, *Gärtn. fr.* 1, *p.* 119, *t.* 25, *f.* 5;—*Rheed.* 4, *t.* 59?—*Rumph.* 4, *t.* 54.) ♄ Sea shores of the Moluccas. Malay Islands. Penang. Mauritius, &c. Fl. middle-sized, white, sweet-scented, and fr. whole year.

* *Scævola Königii*, Vahl.; B. M. 54, t. 2732. ♄ Tropical New Holland. Cochin China.—*S. Plumieri*, Vahl. ♄ W. Indies.—*S. sericea*, Forst.

♄ Tropical New Holland.—*S. oppositifolia*, Roxb. ♄ Moluccas—*S. ovalifolia*, R. Br. ♄ Tropical N. Holland.—*S. revoluta*, R. Br. ♄ Tropical N. Holland.—*S. angulata*, R. Br. ♄ Tropical New Holland.—*Dampiera ferruginea*, R. Br. ♄ Tropical N. Holland.

ORDER CLXXXI.—CINCHONACEÆ,—Lindl. Nat. Syst. p. 243.

THE COFFEE TRIBE.

Trees, shrubs, or herbs, by Lindl. (excluding Uncaria, Tarenna and Cenotheca, and adding Neurocalyx, Oxystoma and Psilospermum,) referred to 233 genera. Of these, DC. pr. enumerates about 870 species for S. America, Mexico, and the W. Indies; 54 for Guinea; 52 for New Holland and the South Sea Islands; 40 for the Mascarenhas Islands; 24 for Senegal; 22 for Madagascar; 18 for China; 14 for N. America, especially its southern provinces; 4 for Arabia; 3 for Zanguebar; 3 for Timor; 3 for Persia; 3 for Japan; 2 for the Canaries; 1 for S. Europe; 1 for St. Helena; 1 for Ascension; and 1 for Tristan d'Acunha. In S. Africa, excluding one Rubia, and several Galiums, have been found about 52 species; and in the E. Indies, according to DC., W. and A., and Wall. Cat., 695, viz.

Of Nauclea, 51.
— Hymenopogon, 1.
— Luculia, 1.
— Hymenodictyon, 4.
— Exostemma, 1. (*Röm. and Sch.*)
— Zuccarinia, 1.
— Lucinæa, 1.
— Mussænda, 20.
— Gynopachys, 3.
— Stylocoryne, 14.
— Gardenia, 22.
— Randia, 17.
— Griffithia, 1.
— Menestoria, 4.
— Heliospora, 1.
— Hyptianthera, 1.
— Bertiera, 3.
— Petesia, 4. (*Bartl., Lour.*)
— Petunga, 4.
— Macrocnemum? 2. (*Roxb.*)
— Wendlandia, 16.
— Lerchea, 1.
— Greenia, 2.
Of Adenosacme, 3.
— Xanthophytum, 1.
— Ophiorrhiza, 26.
— Argostemma, 8.
— Spiradiclis, 1.
— Neurocalyx, 2.
— Dentella, 1.
— Hedyotis, 95.
— Kohautia, 2.
— Metabolos, 10.
— Axanthes, 5.
— Urophyllum, 2.
— Morinda, 21.
— Myrmecodia, 2.
— Hydnophytum, 2.
— Hypobathrum, 1.
— Mephitidia, 20.
— Vangueria, 2.
— Guettarda, 7.
— Timonius, 2.
— Hamiltonia, 3.
— Leptodermis, 1.
— Myonima? 1. (*Bartl.*)

Of Litosanthes, 1.
— Gynochtodes, 1.
— Cœlospermum, 2.
— Stigmanthus, 1. (*Lour.*)
— Pæderia, 4.
— Amaracarpus, 1.
— Damnacanthus, 1. (*Gärtn.*)
— Canthium, 17.
— Epithinia, 1.
— Chiococca? 1. (*Bl.*)
— Ixora, 60.
— Pavetta, 28.
— Saprosma, 2.
— Polyozus, 2. (*Bl.*)
— Grumilea, 4.
— Rutidea? 1. (*Bl.*)

Of Coffea, 8.
— Antherura, 1. (*Lour.*)
— Psychotria, 38.
— Cephaelis? 1. (*Bl.*)
— Geophila, 1-2.
— Cephalanthus, 3. (*Lour., Roxb.*)
— Borreria, 4.
— Santia, 1.
— Eupyrena, 1.
— Spermacoce, 24.
— Knoxia, 12.
— Mytracarpum, 1. (*Cham. & Schl.*)
— Cuncea, 1. (*Buch.*)
— Hydrophylax, 1.
— Scyphiphora, 1. (*Gärtn.*)

Cinchonaceæ not sufficiently known as to their place.

Psilobium, 2.
Platymerum, 1. (*Bartl.*)
Lecananthus, 1,
Jackia, 1.
Myrioneuron, 1.
Pleotheca, 2.

Species to be re-examined as to their section and genus.

Cupia auriculata. DC.
—— truncata, DC.
—— scandens, DC.
Genipa bufalina, Lour.
——— flava, Lour.
Gardenia? pubescens, Roth.
Randia parviflora, Lam.
——— drupacea, DC.
Randia polysperma, Roxb.
Pæderia recurva, Roxb.
——— erecta, Roxb.
——— ternata, Wall.
——— Wallikara, Juss.
Polyozus barbatus, Sm.
Cephalanthus procumbens, Lour.
——— montanus, Lour.

As that part of Wall. Cat., which contains the greatest part of his Cinchonaceæ, remains in R. Brown's hands unpublished, the number of Indian species cannot be exactly ascertained.

Properties, as far as India is concerned, under the species.

A. Cinchoneæ, A. Rich.

(Cinchonaceæ, *DC. pr.* 4, *p.* 343, *W. and A. pr.* 1, *p.* 390.)

Nauclea, L. (*DC. pr.* 4, *p.* 343; *W. and A. pr.* 1, *p.* 390.)

1. *undulata*, Roxb. (*fl. ind.* 1, *p.* 508; *ed. Carey*, 2, *p.* 117;—*DC. l. c.*; *G. Don's Mill. dict.* 3, *p.* 466.) ♄ Moluccas. Fl. small, orange, fragrant, May and June; fr. March and April.

2. *coadunata*, Roxb. (*Rees' cycl.* 24, *No.* 6;—*DC. pr.* 4, *p.* 344;—G. *Don's Mill. dict.* 3, *p.* 467.—N. cordata, *Roxb. fl. ind.* 1, *p.* 509; *ed. Carey*, 2, *p.* 118.) ♄ Ceylon. Fl. small, bright yellow, fragrant. In H. C. G. fl. May and June; fr. C. S. (*Roxb.*)

3. *macrophylla*, Roxb. (*fl. ind.* 1, *p.* 511 ; *ed. Carey*, 2, *p.* 120 ;—*DC. pr.* 4, *p.* 344 ;—*G. Don's Mill. dict.* 3, *p.* 467.) L. ♄ Amboyna. Fl. small, pale yellow, sweet smelling. In H. C. G. fl. June and July. (*Roxb.*)
4. *ovalifolia*, Roxb. (*fl. ind.* 1, *p.* 516 ; *ed. Carey*, 2, *p.* 124 ;—*DC. pr.* 4, *p.* 344 ;—*G. Don's Mill. dict.* 3, *p.* 467.) ♄ Silhet. Introduced into H. C. G. in 1811, but had not fl. up to 1814. (*Roxb.*)
5. *Cadamba*, Roxb. (*fl. ind.* 1, *p.* 512 ; *ed. Carey*, 2, *p.* ;—*DC.* 121 *pr.* 4, *p.* 344 ;—*G. Don's Mill. dict.* 3, *p.* 467 ;—*J. Grah. Cat. B. pl. p.* 87, excl. syn. W. and A. et. Rumph.—*Rheed.* 3, *t.* 33.) কদম *Kudum*. L. ♄ Common about the villages in S. Concan, Bengal, (Serampore.) Silhet, Patna, Gungachara. Fl. small, orange-coloured, sweet-scented, H. S. ; fr. Oct. and Nov.
6. *parvifolia*, Roxb. (*Corom.* 1, *t.* 52 ; *fl. ind.* 1, *p.* 513 ; *ed. Carey*, 2, *p.* 122 ;—*DC. pr.* 4, *p.* 344 ;—*G. Don's Mill. dict.* 3, *p.* 467 ;—*W. and A. pr.* 1, *p.* 391 ;—*J. Grah. Cat. B. pl. p.* 87 ;—*Wight's ill.* 2, *t.* 123.—N. parviflora, *Pers. syn.* 1, *p.* 202.—Cephalanthus pilulifer, *Lam.* ;—*DC. o. c. p.* 539.—Nauclea orientalis, *Gärtn. fr.* 1, *p.* 151, *t.* 30, *f.* 8, excl. syn.) L. ♄ Coromandel. The Concans. Common in the Mawul districts. Bengal, (Serampore.) Monghir. Morung. Rajmahl Hills. Hurdwar. Deyra-Dhoon. Kheree Pass. Kemaon. Fl. small, yellow, H. and R. S. ; fr. C. S.—*Wood* light chestnut-coloured, firm, close-grained, used for various purposes connected with gunnery, but soon rotting, if exposed to wet. (*Roxb. J. Graham.*)
7. *cordifolia*, Roxb. (*Corom.* 1, *t.* 53 ; *fl. ind.* 1, *p.* 514 ; *ed. Carey*, 2, *p.* 122 ;—*DC. pr.* 4, *p.* 346 ;—*G. Don's Mill. dict.* 3, *p.* 468 ;—*W. and A. pr.* 1, *p.* 391 ;—*J. Grah. Cat. B. pl. p.* 87.) কেলি কদম *Keli-Kudum*, L. ♄ Coromandel Mountains. Common throughout the Concans. Banks of the Irawaddi. Taong-Dong. Bengal, (Serampore.) Hurdwar. Deyra-Dhoon. Kheree Pass. Kemaon. Fl. small, yellow, R. S ; fr. April.—*Wood* coloured like that of the Box-tree, but much lighter, and at the same time very close-grained. It answers well for furniture ; exposed to wet, it soon decays. (*Roxb.*)
8. *sessilifructus*, (Uncaria sessilifructus, *Roxb. fl. ind.* 1, *p.* 520 ; *ed. Carey*, 2, *p.* 130 ;—*DC. pr.* 4, *p.* 349 ;—*G. Don's Mill. dict.* 3, *p.* 471.) ♄ ◡ Chittagong. Khassya Mountains. Assam. In H. C. G. Fl. ?
9. *scandens*, Sm. (*Rees' cycl.* 24, *No.* 9, excl. syn. Rumph.—Uncaria pilosa, *Roxb, fl. ind.* 1, *p.* 520 ; *ed. Carey*, 2, *p.* 130 ;—*DC. pr.* 4, *p.* 348 ;—*G. Don's Mill. dict.* 3, *p.* 470 ;—*Wall. pl. as. rar.* 2, *t.* 170.) ♄ ◡ Chittagong. Nepal. Kemaon. In H. C. G. Fl. small, whitish.
10. *capitellata*, (Nauclea microcephala, *Wall. MSS.* ; not Delil.) In H. C. G.

Luculia, Sweet. (*DC. pr.* 4, *p.* 357 ;—*G. Don's Mill. dict.* 3, *p.* 480.)

1. *gratissima*, Sweet. (*Brit. fl. gard. t.* 145 ;—*DC. o. c. p.* 358 ;—*G. Don. l. c.*—Cinchona gratissma, *Wall. Roxb. fl. ind.* ; *ed. Carey*, 2,

p. 154 ;—*tent. fl. nep.* 1, *t.* 21.—Mussænda Luculia, *Buch.* ;—*D. Don. pr. fl. nep. p.* 139.) ♄ Khassya Mountains. Nepal. Fl. large, rose-coloured, fragrant. Has been introduced in H. C. G. Fl. ?

HYMENODICTYON, Wall. (*DC. pr.* 4, *p.* 358 ;—*G. Don's Mill. dict.* 3, *p.* 480 ;—*W. and A. pr.* 1, *p.* 392.)

1. *thyrsiflorum*, Wall. (*DC. l. c.* ;—*G. Don. l. c.* ;—*J. Grah. Cat. B. pl. p.* 87.—Cinchona thyrsiflora, *Roxb. fl. ind.* 1, *p.* 530 ; *ed. Carey*, 2, *p.* 251.) ♄ Rangoon. Chittagong. Rajmahl. Salsette and Jowar jungles. Fl. small, greenish yellow, fragrant, June and July ; fr. Oct. Nov. and Dec.

MANETTIA, Mutis, (*DC. pr.* 4, *p.* 362 ;—*G. Don's Mill. dict.* 3, *p.* 483.)

1. *cordifolia*, Mart. (*Sp. mat. med. bras.* 1, *p.* 19, *t.* 7 ;—*DC. o. c. p.* 363 ;—*G. Don. o. c. p.* 484 ;—*B. M.* 59, *t.* 3202.—M. glabra, *Cham. and Schlecht* ;—*DC. l. c.* ;—*G. Don. l. c.*) ♃. ◡ Hedges and margins of woods in Brazil, in the province of Minas Geraes, at Villa Ricca. Fl. largish, scarlet, R. S.—*Roots* an excellent remedy in dropsy and dysentery. (*Mart.*)

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* *N. sessiliflora*, Roxb. ♄ Chittagong.—*N. glabra*, Roxb. ♄ Moluccas. —*N. rotundifolia*, Roxb. ♄ Chittagong.—*N. purpurea*, Roxb. Corom. 1, t. 54, ♄ Circars.—*N. Gambir*, Hunt. ♄ ◡ Singapore. Penang. Malacca. Sumatra. Yields the best Gum Kino.—*N. acida*, Hunt. ♄ ◡ Penang. Java.—*N. sclerophylla*, Hunt. ♄ ◡ Penang.—*N. ovalifolia*, (Uncaria ovalifolia, Roxb.) ♄ ◡ Penang.—*N. lanosa*, Poir, ♄ ◡ Penang.—*N. elliptica*, (Uncaria elliptica, R. Br.) ♄ ◡ Penang.—*N. cirrhiflora*, (Uncaria cirrhiflora, Roxb.) ♄ ◡ Malay Islands.—*N. pedicellata*, (Uncaria pedicellata, Roxb.) ♄ ◡ Moluccas.—*N. guianensis*, (Uncaria guianensis, Gmel.) ♄ ◡ Guiana.—*Adina globiflora*, Salisb. (Nauclea Adina, Sm. ; B. Reg. 11. t. 895,) ♄ China.—*Lecananthus erubescens*, Jack. ♄ Singapore.—*Stevensia buxifolia*, Poit. ♄ St. Domingo.—*Coutarea speciosa*, Aubl. ♄ Guiana.—*C. mexicana*, Zucc. and Mart. ♄ Mexico.—*Hillia longiflora*, Swz. B. M. 19, t. 721, ♄ W. Indies. Mexico.—*Hymenodictyum excelsum*, Wall. ; Wight. icon. 1, t. 79, ♄ The Ghauts.—*H. obovatum*, W. and A. ; Wight. icon. 1, t. 80. ♄ Ram Ghaut.—*Exostemma caribæum*, Röm. and Sch. ♄ W. Indies. Mexico.—*E. floribundum*, Röm. and Sch. ♄ W. Indies.—*E. australe*, St. Hil. ♄ Brazil.—*Danais fragrans*, Commers. ♄ ◡ Mauritius.—*D. rotundifolia*, Poir. ♄ ◡ Mauritius.—*Manettia coccinea*, Willd. B. Reg. 9, t. 693. ♄ ◡ Guiana.—*M. havannensis*, H. B. and Kth. ♄ ◡ Havannah.—*M. cuspidata*, Bert. ♄ ◡ Jamaica. Mexico.—*M. villosa*, Cham. and Schlecht. ♃. ◡ Brazil.—*M. rosea*, Pohl. ♄ ◡ Brazil.—*Bouvardia Jacquini*, H. B. and Kth ; (B. triphylla, var. *α*. B. Reg. 2, t. 107.) ♄ Mexico.—*B. versicolor*, Ker. ; B. Reg. 3, t. 245. ♄ S. America.—*Calycophyllum candidissimum*, DC. ♄ Banks of the Orinocco.—*C. coccineum*, DC. ♄ Trinidad.

B. GARDENIEÆ, Cham. and Schlecht.

(Gardeniaceæ, *DC. pr.* 4, *p.* 367 ;—*W. and A. pr.* 1, *p.* 393.)

MUSSÆNDA, L. (*DC. pr.* 4, *p.* 370 ;—*G. Don's Mill. dict.* 3, *p.* 489 ;—*W. and A. pr.* 1, *p.* 393.)

1. *frondosa*, L. (*DC. l. c.* ;—*G. Don. l. c.* ;—*W. and A. l. c.* ;—*Roxb. fl. ind.* 1, *p.* 557 ; *ed. Carey*, 2, *p.* 227 ;—*J. Grah. Cat. B. pl. p.* 88 ;—*B. Reg.* 6, *t.* 517 ;—*Wight. ill.* 2, *t.* 124 ;—*Rheed.* 2, *t.* 17 ;—*Burm. zeyl. t.* 76.) ♄ Ceylon. Coromandel. Courtallum. Common on the Ghauts. Khassya Mountains. Lower Nepal. Fl. middle-sized, gold-coloured, H. and R. S ; fr. C. S.

2. *corymbosa*, Roxb. (*fl. ind.* 1, *p.* 556 ; *ed. Carey*, 2, *p.* 226 ;—*DC. pr.* 4, *p.* 371 ;—*G. Don's Mill. dict.* 3, *p.* 490 ;—*W. and A. pr.* 1, *p.* 393.) ♄ Ceylon. Malabar. Silhet. Fl. middle-sized, bright orange, Aug. and Nov. In some parts of India the white floral leaves are brought to the table as an esculent herb. (*Roxb.*)

3. *macrophylla*, Wall. (*pl. as. rar.* 2, *t.* 180 ;—*Roxb. fl. ind.* ; *ed. Carey*, 2, *p.* 228 ;—*DC. pr.* 4, *p.* 371 ;—*G. Don's Mill. dict.* 3, *p.* 490.) ♄ Nepal. Fl. middle sized, deep orange, May, June and July.

STYLOCORYNA, Cav. (*DC. pr.* 4, *p.* 377 ;—*G. Don's Mill. dict.* 3, *p.* 494 ;—*W. and A. pr.* 1, *p.* 400.)

1. *Webera*, A. Rich. (*Mem. soc. hist. nat. Par.* 5, *p.* 248 ;—*W. and A. o. c. p.* 401 ;—*Wight. icon.* 1, *t.* 309 ;—*J. Grah. Cat. B. pl. p.* 89.—Webera corymbosa, *Willd.* ;—*Roxb. fl. ind.* 1, *p.* 696 ; *ed. Carey*, 2, *p.* 533 ;—*Gärtn. fr.* 3, *p.* 71, *t.* 102 ;—*B. Reg.* 2, *t.* 119.—Canthium corymbosum, *Pers.*—Rondeletia asiatica, *L.*—Cupia corymbosa, *DC. pr.* 4, *p.* 394 ;—*G. Don's Mill. dict.* 3, *p.* 506.—Tarenna zeylanica, *Gärtn. fr.* 1, *p.* 139, *t.* 28 ;—*DC. o. c. p.* 395 ;—*G. Don. o. c. p.* 507.—Polyozus ? maderaspatanus, *DC. o. c. p.* 495 ;—*G. Don. o. c. p.* 577 ;—*Rheed.* 2, *t.* 23.) Fl. small, white, at last cream-coloured, fragrant, H. S. ; fr. C. S. L. ♄ Coromandel. S. Concan. Goa jungles. Penang. &c. Young *shoots* frequently covered over with a resinous exudation. (*Roxb.*)

2. *odorata*, W. and A. (*pr.* 1, *p.* 401 ; annot.—Cupia odorata, *DC. pr.* 4, *p.* 394 ;—*G. Don's Mill. dict.* 3, *p.* 507.—Webera odorata, *Roxb. fl. ind.* 1, *p.* 699 ; *ed. Carey*, 2, *p.* 535.) L. ♄ Khassya Mountains. Fl. middle-sized, white, very fragrant, May.

3. *attenuata*,
4. *coriacea*, } Wall. (China.) Khassya hills. In H. C. G. Fl. ?

BURCHELLIA, R. Br.

1. *capensis*, R. Br. (*B. reg.* 6, *t.* 466.—*B. cab.* 7, *t.* 646.) C. G. H.

GARDENIA, Ellis, (*DC. pr.* 4, *p.* 379 ;—*G. Don's Mill. dict.* 3, *p.* 496 ;—*W. and A. pr.* 1, *p.* 394.)

1. *florida*, L. (*spec. p.* 305 ;—*DC. pr.* 4, *p.* 379 ;—*G. Don's Mill. dict. p.* 496 ;—*Roxb. fl. ind.* 1, *p.* 703 ; *ed. Carey*, 2, *p.* 549 ;—*Thunb. fl. jap. p.* 108 ;—*J. Grah. Cat. B. pl. p.* 88, excl. syn. B. M. 1842 ;—

B. Reg. 6, *t.* 449;—*B. M.* 61, *t.* 3349.—G. jasminoïdes, *Soland.*) গন্ধ রাজ *Gundha-raj.* ♄ China. Cultivated in Japan, the Moluccas, India. C. G. H. &c. Fl. large, white, fragrant, H. S.; fr. C. S.

β. *plena* (Jasminum capense, *Mill. dict. No.* 7, *t.* 180;—*Rumph. auct.* 14, *t.* 2.) ♄ Cultivated in gardens. Fl. double, H. S.

* *ovalifolia*, (*B. M.* 53, *t.* 2627.) Fl. H. S. Cultivated in gardens.

2. *radicans*, Thunb. (*fl. jap. p.* 109, *t.* 20;—*DC. pr.* 4, *p.* 379;—*G. Don's Mill. dict.* 3, *p.* 496;—*B. Repos.* 8, *t.* 491;—*B. Reg.* 1, *t.* 73;—*B. M.* 43, *t.* 1842.) ♄ Japan. Cultivated in the East Indies, and at the C. G. H. Fl. largish, white, fragrant, simple, or oftener double, (as in the above quoted plates,) H. S.

3. *coronaria*, Buch. (*Syme's emb. Ava, p.* 474, with a plate.—G. costata, *Roxb. H. B. p.* 15; *fl. ind.* 1, *p.* 704; *ed. Carey*, 2, *p.* 550;—*DC. pr.* 4, *p.* 380;—*G. Don's Mill. dict.* 3, *p.* 496.) ♄ Chittagong. Fl. very large, white, in the course of the day becoming deep yellow, fragrant, April; fr. C. S.

4. *carinata*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 560;—*DC. pr.* 4, *p.* 380;—*G. Don's Mill. dict.* 3, *p.* 496.) ♄ Hills of Penang. Fl. largish, white, soon becoming yellow, fragrant, April and May.

5. *enneandra*, Kön. (*W. and A. pr.* 1, *p.* 394;—*J. Grah. Cat. B. pl. p.* 88?—G. latifolia, *Roxb. Corom.* 2, *t.* 134; *fl. ind.* 1, *p.* 706; *ed. Carey*, 2, *p.* 552; excl. syn. Willd.; not Ait.;—*DC. pr.* 4, *p.* 380, and *G. Don's Mill. dict.* 3, *p.* 497, excl. syn. Ait.) ♄ Hills in the Circars and Carnatic. Tull Ghaut. Guzerat. Jungles in Kandesh. Fl. very large, in the morning pure white, in the evening yellow, fragrant, April; fr. C. S.

6. *latifolia*, Ait. (*Hort. Kew.* 1, *p.* 294;—*Willd.*;—*Gärtn. fr.* 3, *p.* 78, *t.* 193, *f.* 3;—*W. and A. pr.* 1, *p.* 395;—*J. Grah. Cat. B. pl. p.* 88.) ♄ Southern Peninsula of India. Duddi on the Gutpurba. Fl. like those of No. 5, April and May; fr. C. S.

7. *lucida*, Roxb. (*fl. ind.* 1, *p.* 707; *ed. Carey*, 2, *p.* 553;—*DC. pr.* 4, *p.* 381;—*G. Don's Mill. dict.* 3, *p.* 497;—*W. and A. pr.* 1, *p.* 395;—*J. Grah. Cat. B. pl. p.* 88.—G. resinifera, *Roth.*) ♄ Circars. Columala. Elephanta. Kennery jungles. South Mahratta Country. Chittagong. Fl. large, pure white, fragrant, March and April; fr. C. S. Furnishes the gum called *Decamalee.* (*J. Grah.*)

8. *gummifera*, L. (*fil. suppl. p.* 164;—*DC. pr.* 4, *p.* 381;—*G. Don's Mill. dict.* 3, *p.* 497;—*Roxb. fl. ind.* 1, *p.* 709; *ed. Carey*, 2, *p.* 555;—*W. and A. pr.* 1, *p.* 395;—*J. Grah. Cat. B. pl. p.* 88.—G. arborea, *Roxb. fl. ind.* 1, *p.* 708; *ed. Carey*, 2, *p.* 554;—*DC. l. c.*;—*G. Don. l. c.*) ♄ Circars. Gingie Hills. Ceylon. Very common about Duddi, on the Gutpurba. Fl. large, white, in the evening becoming yellow, fragrant, March and April; fr. C. S. From the buds, and wounds made in the bark exudes a beautiful yellow *resin.* (*Roxb.*)

9. *chinensis*, Carey MSS. 5 China. Fl. small, white, in the evening becoming yellow, March and April; fr. C. S.—*Unarmed; young shoots* densely pubescent; *leaves* opposite, one smaller than the other, cuneate-obovate, shortly apiculate, acute, membranous, along the nerves puberulous, otherwise glabrous, (1-3 inches by $\frac{1}{2}$-$1\frac{1}{2}$ inch.) *petioles* 1-3 lines; *flowers* axillary, solitary, short peduncled; *calyx* adpressedly hirtulous, tube cylindric, ecostate, as long as the tube of the corol, lobes 4-5, oval, acute, nearly the size of the lobes of the corol; limb of the *corol* sericeous, 5-parted, with the lobes oval, obtuse, equal; *anthers* subsessile in the fissures of the corol, recurved; *stigma* exsert, equally bilamellate; *berry* oval, (about 1 inch) slightly puberulous, 10-11 sulcate, 1-celled, many-seeded.

10. *Thunbergia*, L. (*fil. supp. p.* 162;—*B. M.* 25, *t.* 1004;—*Roxb. H. B. p.* 15;—*DC. pr.* 4, *p.* 382;—G. *Don's Mill. dict.* 3, *p.* 498.—Thunbergia capensis, *Montin.*—Gardenia verticillata, *Lam.*—G. crassicaulis, *Salisb. Lond. t.* 46.—Bergkias, *Sonner. it. nov. guin. t.* 17, 18; *journ. phys.* 3, *p.* 299, *t.* 3.) ♄ C. G. H. Manilla. Fl. large, white, fragrant, June, but very seldom; fr. 0.

11. *Rothmannia*, L. (*fil. suppl. p.* 165;—*DC. pr.* 1, *p.* 382;—*G. Don's Mill. dict.* 3, *p.* 498;—*B. M.* 18, *t.* 690;—*Roxb. H. B. p.* 15.—Rothmannia capensis, *Thunb.*) ♄ C. G. H. Fl. very large, white, crimson-spotted, fragrant. Introduced into H. C. G. in 1799, but had not fl. up to 1814.

12. *macrocarpa*, Carey MSS. 5 Seeds received from Messrs. Loddiges and Co., in 1822. Flowers very large, white, in the evening becoming yellow, fragrant, April and May; fr. C. S. *Branches* rigid, ash-coloured, powdery; *branchlets* tern, conform; *leaves* at the end of the branchlets, tern or quatern, very short-petioled, from oblong to cuneate obovate, obtuse, undulate, firm, coriaceous, puberulous; ($1\frac{1}{2}$-$3\frac{1}{2}$ inches, by $\frac{1}{2}$-$1\frac{1}{2}$ inch); *flowers* solitary and sessile at the ends of the branchlets, and at base surrounded with three, patent, elliptic, obtuse glabrous, equal small floral leaflets; *calyx* cylindric, rigid, (6 lines) 6 lineolate, puberulous, within adpressedly villous and glandularly dotted, at the mouth 6-8 toothed; the teeth rigid, laterally compressed, patent, obliquely ovate, sharply mucronate, (2 lines;) *tube of the corol* incurvedly erect, rigid, terete, thick fleshy, within 6 lineolate and villous, without obscurely 6-culcate and puberulous, from a narrowish base widening gradually till its mouth is 7 lines in diameter, very long, (3 inches); *limb* in 5-7 recurved, oblong, obtuse, fleshy, glabrous, equal laciniæ (1-$1\frac{1}{4}$ inch long, by 7-9 lines wide); *filaments* 6, pubescent, (1 line) inserted into the base of 6 oval foveolæ on the inside of the uppermost part of the corol-tube; *anthers* inserted by the middle of their back, erect, reaching to the mouth of the corol-tube; *stigma* clavate, at apex contortedly 6-lobulate, subexsert. *Drupe* oval, ($2\frac{1}{2}$-3 inches, by 1-$1\frac{3}{4}$ inch) at apex deeply umbilicated, externally ash-coloured,

rugose and powdery, tough, thick, (6-8 lines) fibrous, ligneous, internally cream-coloured, glabrous, nitid, 5-costate. *Seeds* ∞ immersed in a fleshy, viscid, yellowish substance, ovate, biconvex. (2-2½ lines long.) Seems nearest allied to G. ternifolia, Thonn.

13. *amoena,* Sims. (*B. M.* 44, *t.* 1904;—*B. Reg.* 9, *t.* 735;—*DC. pr.* 4, *p.* 382;—*G. Don's Mill. dict.* 3, *p.* 498.) ♄ China. Fl. large, white, having the lobes crimson on the outside during æstivation, March and April.

14. *turgida,* Roxb. (*fl. ind.* 1, *p.* 711; *ed. Carey,* 2, *p.* 557;—*DC. pr.* 4, *p.* 382;—*G. Don's Mill. dict.* 3, *p.* 498.) 5 Bhootan. Fl. largish, white, fragrant, March and April; fr. 0.

15. *campanulata,* (*fl. ind.* 1, *p.* 710; *ed. Carey,* 2, *p.* 556;—*DC. pr.* 4, *p.* 383;—*G. Don's Mill. dict.* 3, *p.* 498.) ♄ Chittagong. Fl. largish, white, pale yellowish in the evening, March and April; fr. Nov. The *fruit* is used by the natives as a cathartic and anthelmintic, and also to wash out stains in silk. (*Roxb.*)

? 16. *densa,* Wall. (*Roxb. fl. ind.; ed. Carey,* 2, *p.* 559;—*DC. pr.* 4, *p.* 383;—*G. Don's Mill. dict.* 3, *p.* 499.) ♄ Sheopoor in Nepal. Fl. small, yellowish-white, fragrant. Has been introduced into H. C. G. Fl. ?

17. *obtusifolia,* Roxb. (*H. B. p.* 15.) ♄ Pegu. Introduced into H. C. G. in 1809, but had not fl. up to 1814.

OXYANTHUS, DC.

1. *hirsutus,* DC. ♄ July 1840.

RANDIA, Houst. (*DC. pr.* 4, *p.* 384;—*G. Don's Mill. dict.* 3, *p.* 499;—*W. and A. pr.* 1, *p.* 396.)

1. *latifolia,* Lam. (*Dict.* 3, *p.* 24, *ill. t.* 156, *f.* 1;—*DC. pr.* 4, *p.* 385;—*G. Don's Mill. dict.* 3, *p.* 500.)—R. aculeata, *L.*—Gardenia aculeata, *Ait.*—G. Randia, *Swz.;—Roxb. H. B. p.* 15.) ♄ Arid places among bushes in the W. Indies. Fl. middle-sized, white, H. S.; fr. C. S.

2. *dumetorum,* Lam. (*ill. t.* 156, *f.* 4;—*DC. pr.* 4, *p.* 385; excl. syn. Thunb.;—*G. Don's Mill. dict.* 3, *p.* 500;—*W. and A. pr.* 1, *p.* 397;—*J. Grah. Cat. B. pl. p.* 89.—Canthium coronatum, *Lam.*—Gardenia dumetorum, *Retz.;—Roxb. Corom.* 2, *t.* 136; *H. B. p.* 15.—G. spinosa, *L.*; not Thunb. nor Willd.—Posoqueria dumetorum, *Roxb. fl. ind.* 1, *p.* 713; *ed. Carey,* 2, *p.* 564.—Ceriscus Malabaricus, *Gärtn. fr.* 1, *p.* 140, under Gardenia dumetorum, *t.* 28, *f.* 4.) ♄ Coromandel. Very common at Mahableshwur, along the Ghauts. Kennery jungles. Guzerat. Deyra-Dhoon. Kheree Pass. Fl. small, white, April; fr. C. S. Fruit, when bruised, and thrown into ponds, soon intoxicates the fish. (*Roxb.*) Used as an emetic. An infusion of the bark of the root is given in S. India as a nauseating medicine. (*Roxb.*)

3. *longispina,* DC. (*pr.* 4, *p.* 386;—*G. Don's Mill. dict.* 3, *p.* 501;—*W. and A. pr.* 1, *p.* 398;—*J. Grah. Cat. B. pl. p.* 189.—Gardenia longispina, *Roxb. H. B. p.* 15.—Posoqueria longispina, *Roxb. fl. ind.*

1, *p.* 716; *ed. Carey*, 2, *p.* 566.) ♄ Coromandel. Common in the jungles of Kandesh. Deyra Dhoon. Kheree Pass.—Flowers largish, pure white, fragrant, March and April; fr. C. S.

4. *nutans*, DC. (*pr.* 4, *p.* 386;—*G. Don's Mill. dict.* 3, *p.* 501;—*W. and A. pr.* 1, *p.* 397.—Gardenia nutans, *Roxb. H. B. p.* 15,—Posoqueria nutans, *Roxb. fl. ind.* 1, *p.* 714; *ed. Carey*, 2, *p.* 565.) L. ♄ Native place uncertain. Fl. middle-sized, white, fragrant, March and April; fr. C. S.

5. *floribunda*, DC. (*pr.* 4, *p.* 386;—*G. Don's Mill. dict.* 3, *p.* 501;—*W. and A. pr.* 1, *p.* 398.—Gardenia floribunda, *Roxb. H. B. p.* 15.—Posoqueria floribunda, *Roxb. fl. ind.* 1, *p.* 719; *ed. Carey*, 2, *p.* 569.) ♄ Coromandel. Fl. middle-sized, white, in the evening yellow. In H. C. G. fl. April and May; fr. C. S. (*Roxb.*)

6. *longiflora*, Lam. (*Dict.* 3, *p.* 26; *ill. t.* 156, *f.* 3; not Salisb.;—*DC. pr.* 4, *p.* 386;—*G. Don's Mill. dict.* 3, *p.* 501.—Posoqueria longiflora, *Roxb. fl. ind.* 1, *p.* 718; *ed. Carey*, 2, *p.* 568.—P. multiflora, *Bl.*—Gardenia multiflora, *Willd.*) L. ♄ Chittagong. Penang. Fl. large, whitish, on the second day becoming yellow, H. S.; fr. C. S.

7. *fasciculata*, DC. (*pr.* 4, *p.* 386;—*G. Don's Mill. dict.* 3, *p.* 501.—Gardenia fasciculata, *Roxb. H. B. p.* 15.—Posoqueria fasciculata, *Roxb. fl. ind.* 1, *p.* 717; *ed. Carey*, 2, *p.* 568.) ♄ Silhet. Fl. middle-sized, white, becoming yellow, fragrant. In H. C. G. fl. H. S.; fr. 0. (*Roxb.*)

? 8. *rigida*, DC. (*pr.* 4, *p.* 386;—*G. Don's Mill. dict.* 3, *p.* 501.—Posoqueria rigida, *Wall.*;—*Roxb. fl. ind.*; *ed. Carey.* 2, *p.* 570.) ♄ Deyra-Dhoon. Mountains of Nepal. Fl. large, white, fragrant. In H. C. G. Fl.?

9. *uliginosa*, DC. (*pr.* 4, *p.* 386;—*G. Don's Mill. dict.* 3, *p.* 500;—*W. and A. pr.* 1, *p.* 398;—*J. Grah. Cat. B. pl. p.* 89;—*Wight. icon.* 2, *t.* 397.—Gardenia uliginosa, *Retz*,;—*Roxb. Corom.* 2, *t.* 135;—*H. B. p.* 15.—Posoqueria uliginosa, *Roxb. fl. ind.* 1, *p.* 712; *ed. Carey*, 2, *p.* 563.) পির আলু *Pir-aloo.* ♄ Coromandel. Banks of rivers in the Concan. South Mahratta Country. Ataveesy, where the Coolies roast and eat the fruit. Bengal, (Serampore.) Deyra-Dhoon. Kheree Pass. Fl. large, white, fragrant, H. S.; fr. C. S.

10. *armata*, DC. (*pr.* 4, *p.* 387;—*G. Don's Mill. dict.* 3, *p.* 501.—Mussænda spinosa, *L. Mant. p.* 45;—*Jacq. amer. t.* 49.—Gardenia armata, Swz.; not Bartl.—G. tetracantha, *Lam. dict.* 2, *p.* 609, not Randia tetracantha, DC.) ♄ W. Indies. Carthagena. Fl. large, pure white, fragrant, H. S.

11. *decussata*, Wall. (*MSS.*—Rondeletia tetrandra, *Roxb. fl. ind.* 1, *p.* 524; *ed. Carey*, 2, *p.* 136.—Wendlandia? tetrandra, *DC. pr.* 4, *p.* 412;—*G. Don's Mill. dict.* 3, *p.* 519.) ♄ Penang. Has been five years in the garden here, without flowering.

12. *cuneata*, Wall. ♄ Ava. In H. C. G.

? 13. *polysperma*, Roxb. (*fl. ind.* 1, *p.* 527; *ed. Carey*, 2, *p.* 146;—*DC. pr.* 4, *p.* 389;—*G. Don's Mill. dict.* 3, *p.* 503.) ♄ Chittagong. In H. C. G. fl. May; fr. August and Sept. (*Roxb.*)

? 14. *scandens*, W. and A. (*pr.* 1. *p.* 401. annot.;—Webera scandens, *Roxb. fl. ind.* 1, *p.* 698; *ed. Carey*, 2, *p.* 534.—Cupia scandens, DC. *pr.* 4, *p.* 394;—*G. Don's Mill. dict.* 3, *p.* 507.) ♄ ♃. Silhet. Fl. large, white, becoming yellow, fragrant. In H. C. fl. April and May; fr. 0. (*Roxb.*)

Hyptianthera, W. and A. (*pr.* 1, *p.* 399.)

1. *stricta*, W. and A. (*l. c.*—Randia stricta, *Roxb. fl. ind.* 1, *p.* 526; *ed. Carey*, 2, *p.* 145;—*DC. pr.* 4, *p.* 386;—*G. Don's Mill. dict.* 3, *p.* 501.—Macrocnemium strictum, *Roxb.*;—*Röm. and Sch. syst.* 5, *p.* 6;—*Sm. in Rees' cycl.*—Rondeletia stricta, *Roth.*;—*Röm. and Sch. o. c. p.* 234.) L. ♄ Khassya Mountains. Nepal. Fl. small, white, inodorous, April; fr. C. S.

Petunga, DC. (*pr.* 4, *p.* 398;—*G. Don's Mill. dict.* 3, *p.* 509.)

1. *Roxburghii*, DC. (*o. c. p.* 399;—*G. Don's Mill. dict. o. c. p.* 510.—Randia racemosa, *Roxb. fl. ind.* 1, *p.* 525; *ed. Carey*, 2, *p.* 144.) L. ♄ Lukshmee-poora. Fl. small, pale greenish-white, indorous, end of R. S.

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* *Sarcocephalus esculentus*, Sabin. ♄ Guinea.—*Lucinæa Morindæ*, DC. (Morinda polysperma, Jack; Roxb. fl. ind.; ed. Carey, 2, p. 204.) ♄ Singapore.—*Amaioua guianensis*, Aubl. ♄ Cayenne.—*A. fagifolia*, Desf. ♄ Cayenne.—*Mussænda speciosa*, Poir. ♄ Caraccas.—*M. glabra*, Vahl.; B. Cab. t. 1269. ♄ Singapore. Penang.—*M. pubescens*, Ait.; B. M. 46, t. 2099. ♄ China.—*M. Wallichii*, G. Don. (M. longifolia, Wall; not Lam.) ♄ Tavoy. Rangoon.—*M. Landia*, Lam. ♄ Mauritius.—*M. Stadmanni*, Michx. ♄ Mauritius.—*M. arcuata*, Lam. ♄ Mauritius.—*M. sericea*, Bl. ♄ Moluccas.—*Kutchubæa insignis*, Fisch. ♄ Guiana.—*Cassupa verrucosa*, H. and B. ♄ S. America.—*Tocoyena macrophylla*, H. B. and Kth. ♄ S. America.—*Posoqueria longiflora*, Aubl. ♄ Guiana.—*P. revoluta*, Nees. ♄ Brazil.—*Oxyanthus tubiflorus*, DC. (Gardenia tubiflora, B. M. 45, t. 1992.) ♄ Sierra Leona.—*Griffithia fragrans*, W. and A. Rheed. 5, t. 35. S. Concan. ♄—*Stylocoryne densiflora*, W. and A. ♄ Penang.—*Genipa americana*, L. ♄ W. Indies.—*Gardenia calyculata*, Roxb. ♄ Hydrabad.—*G. clusiæfolia*, Jacq. ♄ Bahama Islands.—*G. anisophylla*, Jack. ♄ Penang.—*G. montana*, Roxb. ♄ Circars.—*G. pannea*, Lindl.; B. Reg. 23, t. 1952, ♄ S. America.—*Randia triflora*, Buch. ♄ Nepal.—*R. Mussændæ*, DC. ♄ Guiana. Mexico.—*Menestoria Tocoyenæ*, DC. ♄ Nepal.—*M. Hamelliæ*, DC. ♄ Nepal.—*M. Mussændæ*, DC. ♄ Nepal.—*Helospora flavescens*, Jack. ♄ Sumatra.—*Bertiera guianensis*, Aubl. ♄ Guiana.—*B. palustris*, A. Rich. ♄ Guiana.—*B. Zaluzania*, Gärtn. ♄ Mauritius.—*Petesia grandis*, Bartl. ♄ Mexico.—*Fernelia buxifolia*, Lam. ♄ Mauritius.—

F. obovata. Lam. ♄ Mauritius.—*Catesbæa latifolia,* Lindl. B. Reg. 10, t. 858. ♄ Havannah.—C. *spinosa,* L. ♄ Bahama Islands. B. M. 4, t. 131.

C. HEDYOTIDEÆ. Cham. and Schlecht.

(*DC. pr.* 4, *p.* 401;—*W. and A. pr.* 1, *p.* 401.)

WENDLANDIA, Bartl. (*DC. pr.* 4, *p.* 411;—*G. Don's Mill. dict.* 3, *p.* 517;—*W. and A. pr.* 1, *p.* 402.)

1. *exserta,* DC. (*l. c.;*—*G. Don. o. c. p.* 518;—*W. and A. l. c.*—Rondeletia exserta, *Roxb. fl. ind.* 1, *p.* 523; *ed. Carey,* 2, *p.* 135.—Rondeletia thyrsiflora, *Roth.*—R. Heynei, *Röm. and Sch.*—R. oryssensis. *Roth.*) ♄ Peninsula of India. Gour. Nepal. Fl. small, pure white, fragrant, March.

2. *tinctoria,* DC. (*pr.* 4, *p.* 411;—*G. Don's Mill. dict.* 3, *p.* 518.—Rondeletia tinctoria, *Roxb. fl. ind.* 1, *p.* 522; *ed. Carey,* 2, *p.* 134.) ♄ Burdwan. Midnapore. Fl. small, white, Dec. Jan. and Feb.; fr. May. *Bark* employed by the natives as a mordant in some of their dyes. *(Roxb.)*

3. *paniculata,* DC. (*pr.* 4, *p.* 411;—*G. Don's Mill. dict.* 3, *p.* 518.—Rondeletia paniculata, *Roxb. fl. ind.* 1, *p.* 521; *ed. Carey,* 2, *p.* 133.) ♄ Malay Islands. Fl. minute, pure white. In H. C. G. fl. from March to June; fr. 0. (*Roxb.*)

DENTELLA, Forst. (*DC. pr.* 4, *p.* 418;—*G. Don's Mill. dict.* 3, *p.* 524;—*W. and A. pr.* 1, *p.* 405.)

1. *repens,* Forst. (*DC. o. c. p.* 419;—*G. Don. l. c.;*—*W. and A. l. c.;*—*Roxb. fl. ind.* 1, *p.* 532; *ed. Carey,* 2, *p.* 159; excl. syn. Burm.—*J. Grah. Cat. B. pl. p.* 90.—Oldenlandia repens, *L. Mant. p.* 40; not Burm.—Hedyotis repens, *Lam.;*—*Rumph.* 5, *t.* 170, *f.* 4,) ভুঁই পাট *Bhoomi-pat.* ☉ New Caledonia. Moluccas. Timor. Java. Ceylon. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. small, white, and fr. Feb. March and April.

HEDYOTIS, L. (*DC. pr.* 4, *p.* 419;—*G. Don's Mill. dict.* 3, *p.* 524;—*W. and A. pr.* 1, *p.* 405.)

1. *lineata,* Roxb. (*fl. ind.* 1, *p.* 365; *ed. Carey,* 1, *p.* 369;—*DC. pr.* 4, *p.* 420;—*G. Don's Mill. dict.* 3, *p.* 526.) ☉ Chittagong. In H. C. G. fl. and fr. R. S. (*Roxb.*)

2. *scandens,* Roxb. (*fl. ind.* 1, *p.* 364; *ed. Carey,* 1, *p.* 369;—*DC. pr.* 4, *p.* 422;—*G. Don's Mill. dict.* 3, *p.* 527.) ♄ Silhet. In H. C. G. fl. H. S.; fr. R. S. (*Roxb.*)

3. *hispida,* Retz. (*Obs.* 4, *p.* 23; not Roth.;—*DC. pr.* 4, *p.* 420;—*G. Don's Mill. dict.* 3, *p.* 525;—*Roxb. fl. ind.* 1, *p.* 364; *ed. Carey,* 1, *p.* 368.—Oldenlandia hispida, *Poir.*) ☉ China. Moluccas. Java. Fl. small, white. In H. C. G. fl. R. S. (*Roxb.*)

β. *villosa,* (Hedyotis Auricularia, *Roxb. fl. ind.* 1, *p.* 365; *ed. Carey,* 1, *p.* 369, excl. syn. L. and Rheed.) ☉ Khassya Mountains. Nepal. Introduced into H. C. G. in 1815.

4. *racemosa*, Lam. (*Enc.* 3, *p*, 76; *ill. t.* 62, *f.* 2;—*W. and A. pr.* 1, *p.* 414;—*Wight. icon.* 1, *t.* 312.—Oldenlandia alata, *Roxb. fl. ind.* 1, *p.* 421; *ed. Carey*, 1, *p.* 442; excl. syn. Kön.) গন্ধ ভাদালী *Gundho-bhadulee.* ⊙ Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. small, white, and fr. R. S.

? β. *paniculata*, (Oldenlandia paniculata, *Roxb. fl. ind.* 1, *p.* 422; *ed. Carey*, 1, *p.* 443, excl. syn. Burm.; not DC. nor G. Don.) ♂. Moluccas. Fl. small, white. In H. C. G. fl. and fr. nearly the whole year.

5. *pumila*, L. (*Suppl. p.* 119;—*W. and A. pr.* 1, *p.* 414.—Oldenlandia pumila, *DC. pr.* 4, *p.* 425;—*G. Don's Mill. dict.* 3, *p.* 528.—O. crystallina, *Roxb. fl. ind.* 1, *p.* 422; *ed. Carey*, 1, *p.* 443;—*DC. o. c. p.* 426;—*G. Don. o. c. p.* 529.) পুঁখা *Punkha.* Peninsula of India. Bengal, (Serampore.) Monghir. ⊙ Fl. minute, white, R. S.; fr. R. and C. S.

6. *Burmanniana*, R. Br. (*W. and A. pr.* 1, *p.* 415;—*J. Grah. Cat. B. pl. p.* 90.—H. biflora, *Lam.*; *Roth.* not R. Br.—H. diffusa, *Willd.* according to Chamisso.—Oldenlandia biflora, *Lam.*; not L.;—*DC. pr.* 4, *p.* 426, *and G. Don's Mill. dict.* 3, *p.* 520, excl. syn. L.; *Roxb. fl. ind.* 1, *p.* 423; *ed. Carey*, 1, *p.* 445.—O. triflora, *Roxb. H. B. p.* 11.—Gerontegea biflora, Cham. and Schlecht.—*Rheed.* 10, *t.* 35.—*Burm. zeyl.* 22, *t.* 11.) ক্ষেত পাপড়া *Khet-papra.* ⊙ Ceylon. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. small, white, R. S.; fr. R. and C. S.

β. *meizonantha*, (Oldenlandia diffusa, *Roxb. fl. ind.* 1, *p.* 423, excl. syn. Willd.) ⊙ Banda. Fl. largish, pure, white. In H. C. G. fl. R. S.; fr. R. and C. S. (*Roxb.*)

7. *Heynii*, R. Br. (*W. and A. pr.* 1, *p.* 416;—*J. Grah. Cat. B. pl. p.* 90;—Hedyotis herbacea, Willd. not L.—Oldenlandia herbacea, *Roxb. fl. ind.* 1, *p.* 424; *ed. Carey*, 1, *p.* 445; excl. syn. L.;—*DC. pr.* 4, *p.* 425; *and G. Don's, Mill. dict.* 3, *p.* 528; excl. syn. L.; and Rheed 10, t. 35;—*Rheed.* 10, *t.* 23.) ⊙ Peninsula of India. Fl. small, pure white, R. S.; fr. R. and C. S.

8. *dichotoma*, Kön. (not Cav.—*W. and A. pr.* 1, *p.* 416;—*Roth.*—H. attenuata, *Willd.*—H. affinis, *Röm. and Sch.*—H. linifolia, *Willd.*;—*Röm. and Sch.*—H. diffusa, *Spreng.* not Willd.—Oldenlandia linifolia, *DC. pr.* 4, *p*, 425;—*G. Don's Mill. dict.* 3, *p.* 529.—O. capillaris, *DC. l. c. p.* 426;—*G. Don. l. c. p.* 530.—O ? affinis, *DC. o. c. p.* 428; *G. Don. o. c. p.* 531.—O. pusilla, *Roth.*—*DC. l. c.*;—*G. Don. l. c.*) ⊙ Trichinopoly. Travancore. Bengal, (Serampore.) Fl. small, white, R. S.; fr. R. and C. S.

RONDELETIA, Plum.

1. *odorata*, Jacq. (*B. Reg.* 22, 1905.—R. speciosa, *B. Cab.* 19, *t.* 1893,) ♄ Cuba. Dec. 1840.

ORTHOSTEMMA, Wall.

1. *roseum*, Wall. ♃. Mozambique. Fl. Sept. 1841.

* *Macrocnemum jamaïcense*, Lin. ♄ Jamaica.—*Chimarrhis cymosa*, Jacq. L. ♄ Martinique.—*C. turbinata*, DC. ♄ Cayenne.—*Augustea lanceolata*, Pohl. ♄ Brazil.—*A. parviflora*, Pohl. ♄ Rio Janeiro.—*Portlandia grandiflora*, L.; B. M. 8, t. 286. ♄ Jamaica.—*Isidorea amoena*, Rich. ♄ W. Indies.—*Rondeletia laurifolia*, Swz. ♄ Jamaica.—*R. lævigata*, Ait. ♄ Havannah.—*W. coriacea*, DC. ♃ Deyra-Dhoon.—*Greenea Wightiana*, W. and A. ♄ Peninsula of India.—*G. corymbosa*, (G. Jackii, W. and A.) ♃ Penang.—*Sipanea glomerata*, H. B. Kth. ♃. Banks of the Orinoco.—*S. pratensis*, Aubl. ☉ Cayenne.—*Ophiorrhiza Mungos*, L. ♃. Penang. Deyra-Dhoon.—*O. villosa*, Roxb. ♃. Khassya Mountains.—*O. tomentosa*. Jack. ♃. Penang.—*Argostemma rostratum*, Wall. ♃. Khassya Mountains.—*Hedyotis uncinella*, Hook. and Arn. ♄ China.—*H. Lawsoniæ*, W. and A. ♄ The Concans.—*H. stylosa*, R. Br. ♄ Neelgherries.—*H. articularis*, R. Br. ♄ Neelgherries.—*H. fruticosa*, L. ♄ Penang.—*Anotis Cervantesii*, DC. ♄ Mexico.—*Lerchea longicauda*, L. Java.

D. Isertiëæ, A. Rich.
(*DC. pr.* 4, *p.* 435.)

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* *Gonzalea panamensis*, Pers. ♄ Panama. Mexico.—*G. spicata*, DC. ♄ Havannah.—*Isertia coccinea*, Vahl. ♄ Cayenne.

E. Hameliëæ, A. Rich.
(*DC. pr.* 4, *p.* 438.)

Hamelia, Jacq.

1. *patens*, Jacq. (*Amer. p.* 71, *t.* 50.) ♄ S. America. Fl. 1840.

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* *Sabicea cinerea*, Aubl. ♄ ◡ Guiana.—*S. hirta*, Swz. ♄ ◡ Jamaica.—*Urophyllum villosum*, Jack. ♄ Penang.—*U. glabrum*, Jack. ♄ Penang.—*Hamelia suaveolens*, H. B. and Kth. ♄ Banks of the Magdalena.—*Alibertia edulis*, A. Rich. ♃ Guiana. (Goiave noire.)—*Schradera polycephala*, DC. ♄ Guiana.—*Brignolia acuminata*, DC. ♄ Trinidad.—*Patima guianensis*, Aubl. ♃. Marshes of Guiana.

F. Cordierëæ, A. Rich.
(*DC. pr.* 4, *p.* 445.)

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* *Cordiera triflora*, DC. ♄ Guiana.

G. Guettardeæ, Lindl.
(Guettardaceæ, *Kth. DC. pr.* 4, *p.* 446; *W. and A. pr.* 1, *p.* 418.)

Morinda, Vaill. (*DC. pr.* 4, *p.* 446;—*G. Don's Mill. dict.* 3, *p.* 544;—*W. and A. pr.* 1, *p.* 418.)

1. *citrifolia*, L. (*DC. l. c.*;—*G. Don. l. c.*;—*W. and A. o. c. p.* 419;—*Roxb. fl. ind.* 1, *p.* 541; *ed. Carey*, 2, *p.* 196; *J. Grah. Cat. B. pl. p.* 90;—*Lour*;—*Gärtn. fr.* 1, *p.* 144, *t.* 29, *f.* 1;—*Rheed.* 1, *t.* 52;—*Rumph.* 3, *t.* 99.) ♃ Moluccas. Cochin China. Pegu. Coromandel.

Much cultivated in the Bombay Presidency. Fl. small, white, H. and R. S; fr. R. S. *Roots* employed by the natives, like those of several other species, to dye red. (*Roxb.*)

2. *tinctoria*, Roxb. (*fl. ind.* 1, *p.* 543; *ed. Carey*, 2, *p.* 197;—*DC. pr.* 4, *p.* 447;—*G. Don's Mill. dict.* 3, *p.* 544;—*W. and A. pr.* 1, *p.* 419;—*J. Grah. Cat. B. pl. p.* 90.) অচ *Uch* 5. Common in most parts of India, (Serampore.) Fl. small, white, and fr. nearly the whole year. *Bark* of the roots used to dye red. The colour is fixed with alum, but it is neither bright nor durable. The green *fruits* are picked by the natives, and eaten with their curries. The *wood* is hard, very durable, variegated with red and white, and employed for gun-stocks in preference to all other kinds. (*Roxb.*)

3. *bracteata*, Roxb. (*fl. ind.* 1, *p.* 544; *ed Carey*, 2, *p.* 198;—*DC. pr.* 4, *p.* 447;—*G. Don's Mill. dict.* 3, *p.* 544;—*W. and A. pr.* 1, *p.* 419;—*Wight. ill.* 2, *t.* 126;—*Bl. bijdr. p.* 1006;—*Rumph.* 3, *t.* 98.) 5 Moluccas. Andaman and Philippine Islands. Ganjam district. Fl. small, white, R. and C. S.; fr. C. S.

4. *exserta*, Roxb. (*fl. ind.* 1, *p.* 545; *ed. Carey*, 2, *p.* 199;—*DC. pr.* 4, *p.* 447;—*G. Don's Mill. dict.* 3, *p.* 544;—*W. and A. pr.* 1, *p.* 519;—*J. Grah. Cat. B. pl. p.* 90.) বন অচ *Bun-uch.* 5 Ataveesy-jungles. Bengal, (Serampore.) Fl. small, white, H. and R. S.; fr. C. S.

5. *multiflora*. Roxb. (*fl. ind.* 1, *p.* 546; *ed. Carey*, 2, *p.* 200;—*DC. pr.* 4, *p.* 447;—*G. Don's Mill. dict.* 3, *p.* 545.) 5 Berar. Fl. small, white, R. S.; fr. C. S. Cultivated about Nagpore for the sake of the *bark* of the *roots*, which is used to dye red. (*Roxb.*)

6. *angustifolia*, Roxb. (*fl. ind.* 1, *p.* 547; *ed. Carey*, 2, *p.* 201;—*DC. pr.* 4, *p.* 447;—*G. Don's Mill. dict.* 3, *p.* 545; not Roth.) 5 Chittagong. Fl. white March, fr. May.

7. *vagans*, Wall. 5 Fl. small, white, H. S. China.

VANGUERIA, Commers. (*DC. pr.* 4, *p.* 454;—*G. Don's Mill. dict.* 3, *p.* 549;—*W. and A. pr.* 1, *p.* 421.)

1. *edulis*, Vahl. (*Symb.* 3, *p.* 36;—*DC. l. c.*;—*G. Don. l. c.*;—*W. and A. l. c.*—V. cymosa, *Gärtn. fil.* 3, *p.* 75, *t.* 193.—V. madagascariensis, *Gmel.*—V. Commersonii *Desf.*;—*Jacq. hort. schonbr.* 1, *t.* 44.—Vavanga chinensis, *Rohr. Skrift. Naturh. Selsk. Kjöbenh.* 2, *p.* 207.—Vavanga edulis, *Vahl. l. c. t.* 7.) 5 Madagascar, from whence it has been introduced into the Mauritius, China, &c. Fl. small, white. Has been introduced into H. C. G. Fl.?

2. *spinosa*, Roxb. (*fl. ind.* 1, *p.* 536; *ed. Carey*, 2, *p.* 172;—*DC. pr.* 4, *p.* 454;—*G. Don's Mill. dict.* 3, *p.* 550.—Meynia spinosa, *Lk*;—*Röm. and Sch. mant.*) ময়না *Muyna*, L. ♄ Bengal, (Serampore.) Fl. small, pale greenish, March and April; fr. R. S. *Fruit* eaten by the Natives.

3. *macrophylla*, Wall. ♄ Chittagong.

GUETTARDA, L. (*DC. pr.* 4, *p.* 455;—*G. Don's Mill. dict.* 3, *p.* 550;—*W. and A. pr.* 1, *p.* 421.)

1. *speciosa*, L. (*DC. l. c.*;—*G. Don. l. c.*;—*W. and A. o. c. p.* 422;—*Lam. ill. t.* 154, *f.* 2;—*Roxb. fl. ind.* 1, *p.* 686; *ed. Carey*, 2, *p.* 521;—*J. Grah. Cat. B. pl. p.* 91;—*B. Reg.* 17, *t.* 1393;—*Wight. icon.* 1, *t.* 40.—Cadamba jasminiflora, *Sonner. voy.* 2, *t.* 128.—Nyctanthes hirsuta, *L.*—Jasminum hirsutum, *Willd.*; not L.—*Rheed.* 4, *t.* 47, 48.) ♄ Coromandel, in gardens. Singapore. Fl. large, white, exquisitely fragrant. Has been introduced into H. C. G. Fl.?

HAMILTONIA, Roxb. (*DC. pr.* 4, *p.* 462;—*G. Don's Mill. dict.* 3, *p.* 554;—*W. and A. pr.* 1, *p.* 423; not Mühl.)

1. *suaveolens*, Roxb. (*fl. ind.* 1, *p.* 554; *ed Carey*, 2, *p.* 123;—*DC. l. c.*;—*G. Don. o. c. p.* 555.—Spermadictyon suaveolens, *Roxb. Corom.* 3, *t.* 236;—*R. Br. in B. Reg.* 4, *t.* 348.—Lasianthus tubiflorus, *Bl. bijdr. p.* 990.) L. ♄ Rajmahl hills. Fl. small, white, fragrant, C. S.; fr. H. S.

   β. *azurea*, (Hamiltonia scabra, *Don. pr. fl. nep. p.* 137;—*G. Don's Mill. dict.* 3, *p.* 555.—Spermadictyon azureum, *Wall. Roxb. fl. ind.; ed. Carey*, 2, *p.* 225;—*B. Reg.* 15, *t.* 1235.) L. ♄ Sirmore. Nepal. Fl. small, azure-blue, fragrant, C. S.; fr. H. S.

LEPTODERMIS, Wall. (*DC. pr.* 4, *p.* 462;—*G. Don's Mill. dict.* 3, *p.* 555.)

1. *lanceolata*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 191;—*DC. l. c.*;—*G. Don. l. c.*) ♄ Nepal Mountains. Fl. smallish, white, becoming pale rose, Nov. and Dec.

MYONIMA, Commers. (*DC. pr.* 4, *p.* 463;—*G. Don's Mill. dict.* 3, *p.* 556.)

1. *obovata* Lam. (*ill. No.* 1482, *t.* 68, *f.* 1; *dict.* 4, *p.* 397;—*DC. l. c.*;—*G. Don. l. c.*—M. borbonica, *Räusch.*) ♄ Bourbon, where it is called *Bois de rat*. Introduced in 1841.

2. *multiflora*, A. Rich. (*DC. l. c.*;—*G. Don. l. c.*—Ixora parviflora, *Lam. ill. No.* 1473, *t.* 66, *f.* 2, excl. syn. Rheed; not Vahl.—I. micrantha, *Röm. and Sch.*—Faramea corymbosa, *Sieber. fl. maurit.* 2, *No.* 62; not Aubl.) ♄ Mauritius. Has been introduced into H. C. G. Fl.?

ANTIRRHOEA, Commers.

1. *verticillata*, DC. Bourbon.

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* *Morinda pubescens*, Sm. ♄ Mauritius.—*M. squarrosa*, Buch. ♄ Kamrup.—*M. persicæfolia*, Buch. ♄ Pegu.—*M. Roioc*, L. ♄ W. Indies. Mexico.—*M. tomentosa*, Heyne. ♄ Deccan.—*M. umbellata*, L.;—Rheed. 7, t. 27. ♄ ◡ Courtallum. S. Concan.—*Mephitidia Roxburghii*, W. and A. (Triosteum hirsutum, Roxb.) ♄ Chittagong.—*M. Wallichii*, W. and A. (Nonatelia? hispida, Wall.) ♄ Khassya Mountains.—*Vangueria velutina*, Hook. B. M. 57, t. 3014. ♄ Madagascar.—*Guettarda argentea*, Lam. ♄ Cayenne.—*G. havanensis*, DC. ♄ Havannah.—*G. odorata*, Lam. ♄ Havannah.—*G. viburnoïdes*, Cham. and Schlecht. ♄

Brazil.—*Malanea sarmentosa*, Aubl. ♄ ◡ Guiana.—*Antirrhoea verticellata*, DC. ♄ Bourbon.—*A. dioica*, Bory. ♄ Mauritius.—*A. frangulacea*, DC. ♄ Mauritius.—*Stenostomum lucidum*, Gärtn. 5 Jamaica.—*S. tomentosum*, DC. 5 Jamaica.—*Hamiltonia mysorensis*, W. and A. ♄ Mysore,—*Psathura borbonica*, Gmel. 5 Bourbon.—*P. ternifolia*, A. Rich. 5 Mauritius.—*Myonima myrtifolia*, Lam. ♄ Bourbon.—*Pyrostria oleoïdes*, Lam. 5 Bourbon.—*Octavia sessiliflora*, DC. ♄ Guiana.—*Retiniphyllum secundiflorum*, H. and B. ♄ Banks of Orinocco.—*Nonatelia racemosa*, Aubl. ♄ Guiana.—*Gynochtodes coriacea*, Bl. ♄ ◡ Java.—*Strumpfia maritima*, Jacq. ♄ W. Indies.

H. Pæderiëæ, *DC.*

(*Pr.* 4, *p.* 470;—*W. and A. pr.* 1, *p.* 424.)

Pæderia, L. (*DC. pr.* 4, *p.* 471;—*G. Don's Mill. dict.* 3, *p.* 561;—*W. and A. l. c.*)

1. *foetida*, L. (*DC. l. c.*;—*G. Don. l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 1, *p.* 683; *ed. Carey*, 2, *p.* 517;—*J. Grah. Cat. B. pl. p.* 91.—Apocynum foetidum, *Burm. ind. p.* 71;—*Rumph.* 5, *t.* 160.) গন্ধালী *Gundhalee.* গন্ধ ভাদালী *Gundo-bhadulee.* ♄ ◡ Moluccas. Both Peninsulas of India. Bengal, (Serampore.) Assam. Nepal. Japan. Flowers smallish, lilac-purple, like the whole plant, of a very offensive smell, C. S.; fr. H. S.—*Root* used by the Natives as an emetic. (*Roxb.*)

Roxburgh's two other species, *P. recurva*, (♄ Chittagong,) and *P. erecta*, (♄ Silhet) were introduced into H. C. G. in 1810, and the latter, with small, white corols, fl. there R. S.; fr. C. S. They do not, however, belong either to Pæderia or Pæderieæ, their horny albumen, and seeds grooved on the inside clearly placing them among Coffeëæ. (*W. and A. pr.* 1, *p.* 424. *annot.*)

Lecontea, A. Rich.

1. *Bojeriana*, A. Rich. ♄ ◡ Madagascar. Bourbon. March, 1841.

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* *Lecontea argentea*, A. Rich. ♄ ◡ Madagascar.—*L. Bojeriana*, A. Rich. ♄ ◡ Madagascar.—*Pæderia lanuginosa*, Wall. pl. as. rar. 2, t. 165. ♄ ◡ Rangoon. Prome.

I. Coffeëæ. Lindl.

(Coffeaceæ, *DC. pr.* 4, *p.* 472;—*W. and A. pr.* 1, *p.* 425.)

Canthium, Lam. (*DC. o. c. p.* 473;—*G. Don's Mill. dict.* 3, *p.* 562;—*W. and A. l. c.*)

1. *parviflorum*, Lam. (*dict.* 1, *p.* 602;—*DC. o. c. p.* 474;—*G. Don. l. c. p.* 563.—*W. and A. o. c. p.* 426;—*Roxb. Corom.* 1, *t.* 53; *fl. ind.* 1, *p.* 534; *ed. Carey*, 2, *p.* 170;—*J. Grah. Cat. B. pl. p.* 91;—*Gärtn. fil.* 3, *p.* 93, *t.* 196.—Webera tetrandra, *Willd.*;—*Rheed.* 5, *t.* 36.) ♄ Coromandel, South Mahratta country. Fl. small, yellow, H. S.; fr. Sept.

2. *parvifolium*, Roxb. (*fl. ind.* 1, *p.* 534; *ed. Carey*, 2, *p.* 170;—*DC. pr.* 4, *p.* 474;—*G. Don's Mill. dict.* 3, *p.* 563.) ♄ Chittagong. Was

introduced into H. C. G. before 1814, but had not fl. up to that year.

3. *angustifolium*, Roxb. (*fl. ind.* 1, *p.* 533 ; *ed. Carey*, 2, *p.* 169 ;—*DC. pr.* 4, *p.* 479 ;—*G. Don's Mill. dict.* 3, *p.* 563.) ♄ Chittagong. Silhet. Fl. small, greenish-yellow. Has been introduced into H. C. G. Fl.?

4. *recurvum*, Wall. MSS. } In H. C. G. Fl. ?
5. *floribundum*, Wall. MSS. }

? 6. *chinense*, Pers. (*Syn.* 1, *p.* 200 ;—*DC. pr.* 4, *p.* 475, *and G. Don's Mill. dict.* 3, *p.* 564. excl. the locality of Madras.—Gardenia spinosa, *Thunb.*;—*Roxb. H. B. p.* 15.—Randia spinosa, *Poir.*) ♄ China, near Macao. Eastern Border of Bengal, (*Carey.*) In H. C. G. fl. H. S.; fr. C. S. (*Roxb.*) W. and A., (*pr.* 1, *p.* 398, *annot.*) think it probable, that this plant may be their Randia longispina, β. sylvestris.

7. *longifolium*, Wall. ♄ Khassya hills.

Chiococca, P. Browne, (*DC. pr.* 4, *p.* 482 ;—*G. Don's Mill. dict.* 3, *p.* 568.)

1. *racemosa*, Jacq. (*Amer. p.* 68 ;—*L. sp. p.* 246 ;—*DC. l. c.*;—*G. Don. l. c.*;—*B. Repos. t.* 284 ;—*Hook. fl. exot. t.* 93 ;—*Roxb. H. B. p.* 15.—Lonicera alba, *L. sp. ed.* 1, *p.* 175.) ♄ Fl. small, pale yellow, fragrant, Aug. and Sept. ; fr. 0. Hills of the W. Indies, Mexico and Carthagena.

Ixora, L. (*DC. pr.* 4, *p.* 485 ;—*G. Don's Mill. dict.* 3, *p.* 570 ;—*W. and A. pr.* 1, *p.* 427.)

1. *coccinea*, L. (*Spec. p.* 159, excl. syn. ;—*W. and A. pr.* 1, *p.* 427 ;—*Wight. icon.* 1, *p.* 153 ;—*Roxb. fl. ind.* 1, *p.* 375 ; *ed. Carey*, 1, *p.* 385 ;—*J. Grah. Cat. B. pl. p.* 91.—I. grandiflora, *R. Br.* ; *B. Reg.* 2, *t.* 152 ;—*DC. pr.* 4, *p.* 486 ;—*G. Don's Mill. dict.* 3, *p.* 570 ;—*Hook. bot. misc.* 3, *p.* 284 ; *suppl. t.* 35.—I. propinqua, *R. Br. in Wall. Cat.* ;—*G. Don. l. c.*—Ixora, *L. fl. zeyl. No.* 22;—*Rheed* 2, *t.* 12;—*Burm. zeyl. t.* 57.) L. ♄ China. Travancore. Ceylon. Martaban. Common in gardens. Fl. large, (22-24 lines) bright scarlet, and fr. the whole year.

2. *Bhanduca*, Roxb. (*fl. ind.* 1, *p.* 376 ; *ed. Carey*, 1 *p.* 386 ;—*DC. pr.* 4, *p.* 486, and *G. Don's Mill. dict.* 3, *p.* 570, excl. syn. Rheed ;—*B. Reg.* 6, *t.* 513 ;—*Wight. icon.* 1, *t.* 149;—*J. Grah. Cat. B. pl. p.* 92, excl. syn. Rheed.—I. coccinea, *L.* ex Royen ; not L. sp. p. 159.—I. obovata, *Roth. ?*) রঙ্গণ *Rungun.* ♄ Hindoostan. (Roxb.) Common in Salsette. On the poor uncultivated land between Indapoor and Dasgaum, S. Concan. (J. Grah). Fl. as large as those of *No.* 1, bright scarlet, the whole year ; fr. C. S.

3. *stricta*, Roxb. (*fl. ind.* 1, *p.* 379 ; *ed. Carey*, 1, *p.* 388 ;—*DC. pr.* 4, *p.* 486 ;—*G. Don's Mill. dict.* 3, *p.* 571 ;—*W. and A. pr.* 1, *p.* 427 ;—*Wight. icon.* 1, *t.* 184 ;—*J. Grah. Cat. B. pl. p.* 92.—I. coccinea. *Ait.* ; *B. M.* 5, *t.* 169 ;—*Lour.* ;—*Osb. ves. p.* 220;—not L. sp. p. 159, —I. flammea, *Salisb.*—I. speciosa, *Willd. enum.*—*Rumph.* 4, *t.* 47.)

ħ China. Manilla. Moluccas. Cochin China. Fl. about 12 lines, from a lively orange to scarlet, gradually becoming deeper coloured, the whole year; fr. rarely.

β. *incarnata*, Roxb. (*fl. ind.* 1, *p.* 379, obs.; *ed. Carey*, 1, *p.* 389;—I. incarnata, *Roxb. MSS.*; *Röm. and Sch.* excl. syn.; not. I. incarnata, *DC.*—Pavetta stricta, *Bl. bijdr. p.* 950.) ħ China. Fl. pale rose-coloured; the whole year; fr. 0.

γ. *alba*, Roxb. (*fl. ind.* 1, *p.* 380. obs.; *ed. Carey*, 1, *p.* 389.—Ixora alba, *Roxb. l. c.* excl. syn. L.—I. blanda, *Ker.*;—*B. Reg.* 2, *t.* 100;—*DC. pr.* 4, *p.* 487;—*G. Don's Mill. dict.* 3, *p.* 572.) ħ Bengal, in gardens, introduced from China. Fl. pure white, C. S.; fr. 0.

4. *lanceolata*, Lam. (*Dict.* 3, *p.* 343; excl. syn. except Rumph.—I. longifolia, *Sm. in Rees' cycl.*—I. fulgens, *Roxb. fl. ind*, 1, *p.* 378; *ed Carey*, 1, *p.* 387; *Wight. icon.* 1, *t.* 151;—*Rumph.* 4, *t.* 46.) ħ Moluccas. Fl. largish, scarlet. In H. C. G. fl. nearly the whole year. (*Roxb.*)

5. *Notoniana*, Wall. (*W. and A. pr.* 1, *p.* 428;—*G. Don's Mill. dict.* 3, *p.* 571.) ħ Neelgherries. Fl. middle-sized, red. In H. C. G. Fl.?

6. *rosea*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 1, *p.* 398;—*DC. pr.* 4, *p.* 487; *G. Don's Mill. dict.* 3, *p.* 571;—*B. M.* 50, *t.* 2428;—*B. Reg.* 7, *t.* 540; *B. Cab. t.* 729.) L. ħ Khassya Mountains. Fl. largish, (16 lines,) pale-rose-coloured, H. and R. S. chiefly; fr. 0.

7. *cuneifolia*, Roxb. (*fl. ind.* 1, *p.* 380; *ed. Carey*, 1, *p.* 390;—*DC. pr.* 4, *p.* 487;—*G. Don's Mill. dict.* 3, *p.* 572;—*W. and A. pr.* 1, *p.* 428;—*B. Reg.* 8, *t.* 648;—*B. Cab. t.* 1215.) L. ħ Dacca. Khassya Mountains. Fl. 10-11 lines, pure white, fragrant, March and April; fr. June and July.

8. *barbata*, Roxb. (*fl. ind.* 1, *p.* 384; *ed. Carey*, 1, *p.* 394, excl. syn. Rheed.;—*DC. pr.* 4, *p.* 487;—*G. Don's Mill. dict.* 3, *p.* 572;—*B. M.* 51, *t.* 2505;—*Wight. icon.* 1, *t.* 185.) L. ħ Native place unknown. Fl. 15-16 lines, pure white, sweet-scented, March, April and May; fr. June and July.

9. *undulata*, Roxb. (*fl. ind.* 1, *p.* 385; *ed. Carey*, 1, *p.* 395;—*DC. pr.* 4, *p.* 488;—*G. Don's Mill. dict.* 3, *p.* 572;—*W. and A. pr.* 1, *p.* 428;) পালক জুই *Paluka-jooï.* 5 Bengal, (Serampore.) Monghir. Fl. 5 lines, pure white, sweet-scented, March and April; fr. June and July.

10. *acuminata*, Roxb. (*fl. ind.* 1, *p.* 383; *ed. Carey*, 1, *p.* 393;—*DC. pr.* 4, *p.* 488;—*G. Don's Mill. dict.* 3, *p.* 573.) L. ħ Assam. (Goalpara.) Fl. 2 inches, pure white, very fragrant, April and May; fr. Sept.

11. *parviflora*, Vahl. (*Symb.* 3, *p.* 2, *t.* 52;—*DC. pr.* 4, *p.* 488;—*G. Don's Mill. dict.* 3, *p.* 571;—*Roxb. fl. ind.* 1, *p.* 383; *ed. Carey*, 1, *p.* 393;—*W. and A. pr.* 1, *p.* 429;—*J. Grah. Cat. B. pl. p.* 92;—*Hook. bot. misc.* 3, *p.* 292; *suppl. t.* 34.—I. alba, *Roxb. in Rees' cycl.* not fl. ind.—I. arborea, *Sm. in Rees' cycl.*; *DC. l. c.*—*G. Don. o. c. p.* 572.—I. Pavetta, *Andr. B. Repos.* 1, *t.* 78; *Spreng.*; *Pers.*; not Roxb.—I. decipiens, *DC. l. c.*—*G. Don. o. c. p.* 573.—Webera corymbosa,

Sm. herb ; not of others.) গন্ধল রঙ্গণ *Gundhal-rungun.* 5 Coromandel. Elephanta. Common on the Ghauts, and in the jungles about Nagpore. Bengal, (Serampore.) Fl. 6 lines, pure white, very fragrant, March and April ; fr. R. S. Dâk runners make torches of it. (*J. Grah.*)

12. *brachiata,* Roxb. (*fl. ind.* 1. *p.* 381 ; *ed. Carey,* 1, *p.* 391 ;—*DC. pr.* 4, *p.* 488 ;—*G. Don's Mill. dict.* 3, *p.* 573 ;—*W. and A. pr.* 1, *p.* 429. —I. micrantha, *Heyne.*) L. ♄ Peninsula of India. Bengal, (Serampore.) Fl. 4-4½ lines, white, fragrant, March and April ; fr. May and June.

13. *villosa,* Roxb. (*fl. ind.* 1, *p.* 383 ; *ed. Carey,* 1. *p.* 392 ;—*DC. pr.* 4, *p.* 488 ;—*G. Don's Mill. dict.* 3, *p.* 573 ;—*Wight. icon.* 1, *t.* 150.) L. ♄ Silhet. Penang. Fl 8-9 lines, white, fragrant, April and May ; fr. Sept. and Oct.

14. *Colebrookii,* (I. lanceolaria, *Colebr.* not lanceolata, Lam. ; *Roxb. fl. ind.* 1 *p.* 387 ; *ed. Carey,* 1, *p.* 397,—*DC. pr.* 4, *p.* 488 ;—*G. Don's Mill. dict.* 3, *p.* 572 ;—*W. and A. pr.* 1, *p* 429, excl. syn. Rheed.) ♄ Travancore. Fl. 11-12 lines, greenish, white, inodorous, March and April ; fr. close of the R. S.

15. *erythrostylis,* Wall. MSS. S. ♄ Fl. small, 2-2½ lines, white, with a tinge of rose underneath, fragrant, June and July ; fr. 0. *Tube of corol* 1 line, rose-coloured ; lobes oval, obtuse ; *style* and the exsert *stigma* deep red ; *calyx* ¾ line, red, 4 toothletted ; *corymbs* short-peduncled, trichotomous, greenish-dull red, puberulous ; *leaves* subsessile, oblong, acute, at base cordate, firm, coriaceous, glabrous, 1½-3 inches long, by ¾-1½ inch across the middle ; *stipules* from a broad base becoming laterally compressed and subulate. Not mentioned in Wall. Cat. though known in our gardens, under the above name, for the last 12 years at least.

16. *subsessilis,* Wall. (*Cat.*) ♄ Khassya Mountains. Assam. In H. C. G. Fl. ?

17. *opaca,* R. Br. Wall. (*Cat.*) ♄ Penang. In H. C. G. Fl. ?

18. *pallens,* Wall. (*Cat.*) ♄ Banks of the Attran. In H. C. G. Fl. ?

19. *fasciculata,* Wall. ♄ Khassya Hills.

20. *longiflora,* Rich. ♄ Madagascar.

Pavetta, L. (*DC. pr.* 4, *p.* 490 ;—*G. Don's pr.* 3, *p.* 574 ;—*W. and A. pr.* 1, *p.* 430.)

1. *indica,* L. (*DC. l. c. ;—G. Don. l. c. ;—W. and A. o. c. p.* 431 ;—*J. Grah. Cat. B. pl. p.* 92 ;—*B. Reg.* 3, *t.* 198 ;—*Wight. icon.* 1, *t.* 148. —*Gärtn. fr.* 1, *p.* 116, *t.* 25, *f.* 1, excl. syn. Rumph. and Burm.—P. alba, *Vahl. symb.* 3, *p.* 11.—Ixora paniculata, *Lam. dict.* 3, *p.* 344. —I. Pavetta, *Roxb. fl. ind.* 1, *p.* 385 ; *ed. Carey,* 1, *p.* 395 ;—*Rheed.* 5, *t.* 10.) কুকুর চড়া *Kookoor-choora.* L. ♄ Coromandel. Mahableshwur. Along the Ghauts. Hills at Salsette. Bengal, (Serampore.) Chittagong. Silhet. Assam. Fl. an inch, white, fragrant, April and May ; fr. R. S.

2. *tomentosa*, Sm. (*Rees' cycl.*;—*Roth.*;—*DC. pr.* 4, *p.* 490;—*G. Don's Mill. dict.* 3, *p.* 574;—*Wight. icon.* 1, *t.* 186; not Rich.—Ixora tomentosa, *Roxb. fl. ind.* 1, *p.* 386; *ed. Carey*, 1, *p.* 398.—Pavetta velutina, *Wall. Cat.*) জুই *Jooï*. L. ♄ Peninsula of India. Tavoy. Banks of the Irawaddi. Bengal, (Serampore.) Monghir. Nepal. Kemaon. Fl. 11 lines, white, sweet-scented, March and April; fr. R. S.
3. *longiflora*, Vahl. (*Symb.* 3, *p.* 12.) ♄ Arabia. Java. Bourbon.
4. *caffra*, Thunb. (*B. M.* 64, 3580.) ♄ S. Africa.

GRUMILEA, Gärtn. (*DC. pr.* 4, *p.* 495;—*G. Don's Mill. dict.* 3, *p* 577;—*W. and A. pr.* 1, *p.* 432.)

1. *Reevesii*, W. and A. (*l. c.* annot.—Psychotria Reevesii, *Wall.*;—*Roxb. fl. ind.*; *ed. Carey*, 2, *p.* 164;—*DC. pr.* 4, *p.* 519;—*G. Don's Mill. dict.* 3, *p.* 596.) ♄ China. Fl. small, green, inodorous, April.

COFFEA, L. (*DC. pr.* 4, *p.* 498;—*G. Don's Mill. dict.* 3, *p.* 579;—*W. and A. pr.* 1, *p.* 435.)

1. *arabica*, L. (*Spec. p.* 245;—*DC. o. c. p.* 499;—*G. Don. l. c.*;—*W. and A. l. c.*;—*Roxb. fl. ind.* 1, *p.* 539; *ed. Carey*, 2, *p.* 193;—*Gärtn. fr.* 1, *p.* 118, *t.* 25, *f.* 3;—*J. Grah. Cat. B. pl. p.* 92;—*B. M.* 32, *t.* 1303;—*Wight. icon.* 1, *t.* 53.) কাওয়া *Kaoa.*—*Coffee.* ♄ Arabia Felix and Æthiopia, from whence it has been carried to nearly all parts of the world within the tropics. Fl. large, pure white, sweet-scented, March, April and May; fr. Nov., Dec. and Jan.
2. *mauritiana*, Lam. (*Dict.* 1, *p.* 550; *ill. t.* 160. *f.* 2;—*DC. pr.* 4, *p.* 499;—*G. Don's Mill. dict.* 3, *p.* 581.—C. arabica, β. *Willd. spec.* 1, *p.* 974.—C. sylvestris, *Willd. MSS. in Röm. and Sch. syst.* 5, *p.* 201.—C. myrtifolia, *Roxb. H. B. p.* 15?) *Café-marron.* ♄ Bourbon. Has been introduced into H. C. G. Fl.?
3. *bengalensis*, Roxb. (*fl. ind.* 1, *p.* 540; *ed. Carey*, 2, *p.* 194;—*DC. pr.* 4, *p.* 499;—*G. Don's Mill. dict.* 3, *p.* 591;—*W. and A. pr.* 1, *p.* 435.) বন কাওয়া *Bun-kaoa.* ♄ Bengal, (Serampore.) Khassya Mountains. Assam. Nepal. Fl. large, pure white, March, April and May; fr. H. S.

PSYCHOTRIA, L. *DC. pr.* 4, *p.* 504;—*G. Don's Mill. dict.* 3, *p.* 584;—*W. and A. pr.* 1, *p.* 432.)

1. *undata*, Jacq. (*Hort. schönbr.* 3, *p.* 5, *t.* 260; *fragm. No.* 101;—*DC. pr.* 4, *p.* 513;—*G. Don's Mill. dict. p.* 591;—*Roxb. H. B. p.* 15,) ♄ Bahama Islands. Fl. small, ($3\frac{1}{2}$ line,) pure white, inodorous, April and May; fr. 0.
2. *laurifolia*, Swz. (*Pr. p.* 43; *fl. ind. occ. p.* 392;—*DC. pr.* 4, *p.* 516;—*G. Don's Mill. dict.* 3, *p.* 593.) ♄ Jamaica. Hispaniola.—Has been introduced into H. C. G. Fl.?

? 3. *obtusifolia*, Lam. (*ill. t.* 161, *f.* 4;—*Poir. dict.* 5, *p.* 67;—*DC. pr.* 4, *p.* 519;—*G. Don's Mill. dict.* 3, *p.* 595.) ♄ Madagascar.—Introduced in 1840.

4. *sphærocarpa*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 161;—*DC. pr.* 4, *p.* 519;—*G. Don's Mill. dict.* 3, *p.* 595.) ♄ Khassya Mountains. Has been introduced into H. C. G. Fl.?
5. *stipulacea*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 164;—*DC. pr.* 4, *p.* 519;—*G. Don's Mill. dict.* 3, *p.* 596.) ♄ Penang. Has been introduced into H. C. G. Fl.?
6. *adenophylla*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 166;—*DC. pr.* 4, *p.* 520;—*G. Don's Mill. dict.* 3, *p.* 596.) ♄ Khassya Mountains. Has been introduced into H. C. G. Fl.?
7. *bicornis*, Wall. MSS. ♄ Khassya Hills, 1826.
8. *daphnoïdes*, Cunningh. (*B. M.* 60, *t.* 3228;—*G. Don's Mill. dict.* 3, *p.* 598.) ♄ New Holland. Has been introduced into H. C. G. Fl.?

Chasalia, Commers.

1. ***Boryana***, DC. ♄ Bourbon. Mauritius.

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* *Amaracarpus pubescens*, Bl. ♄ Java.—*Canthium didymum*, Gärtn. ♄ Mahableshwur. Common along the Ghauts.—*C. horridum*. Bl. ♄ Among bushes, Java.—*C. Rheedei*, DC. ♄ Near Sewree Fort. Bombay.—*C. scandens*, Bl. ♄ ◡ Java.—*Psydrax dicoccos*, Gärtn. ♄ Ceylon.—*P. major*, A. Rich. ♄ Madagascar.—*Nescidia myrtifolia*, A. Rich. ♄ Mauritius.—*Diplospora viridiflora*, DC. (Canthium dubium, Lindl.; B. Reg. 12, t. 1026.) ♄ China.—*Epithinia malayana*, Jack. ♄ Malacca. Singapore.—*Siderodendron multiflorum*, A. Rich. ♄ Guiana.—*Declieuxia mexicana*, DC. ♄ Mexico.—*D. chiococcoïdes*, H. B. and Kth. ♄ Rio Janeiro.—*D. mucronulata*, Mart. ♄ Tropical Brazil.—*Tertrea martinicensis*, A. Rich. ♄ Martinique.—*Chiococca anguifuga*, Mart. ♄ Guiana.—*Margaris barbigera*, DC. ♄ Mexico.—*Saldinia Pseudo-morinda*, A. Rich. ♄ Madagascar.—*Scolosanthus versicolor*. Vahl. ♄ St. Cruz.—*Chomelia pubescens*, Cham. and Schlecht. ♄ Tropical Brazil.—*C. spinosa*, Jacq. ♄ Carthagena.—*Ixora crocata*, Ker.; B. Reg. 10, t. 782. ♄ China.—*I. incarnata*, DC. ♄ Moluccas. Cultivated in Java.—*I. tenuiflora*, Roxb. ♄ Moluccas.—*I. congesta*, Roxb. ♄ Moluccas.—*I. pendula*, Jack. ♄ Penang.—*I. amboinica*, DC. ♄ Amboyna.—*I. longifolia*, G. Don. (I. macrophylla, Wall, not Bartl.) ♄ Penang.—*I. grandifolia*, R. Br. ♄ Singapore.—*I. nigricans*, R. Br. ♄ Penang.—*I. concinna*, R. Br. ♄ Singapore.—*I. densa*, R. Br. ♄ Penang.—*Coussarea violacea*, Aubl. ♄ Guiana.—*C. Frölichia*, A. Rich. ♄ Trinidad.—*Grumilea nigra*, Gärtn. ♄ Ceylon.—*Faramea sertulifera*, DC. ♄ Havannah.—*F. odoratissima*, DC. ♄ Jamaica.—*Strempelia guianensis*, A. Rich. ♄ Guiana.—*Coffea guianensis*, Aubl. ♄ Guiana. Trinidad.—*C. rosea*, Moç. and Sessé. ♄ Mexico.—*C. obovata*, Cham. and Schlecht. ♄ Mexico.—*C. tetrandra*, Roxb. ♄ Khassya Mountains.—*C. mexicana*, DC. ♄ Mexico.—*Rudgea ovalifolia*, Salisb. ♄ Guiana.—*R. lanceæfolia*, Salisb. ♄ Guiana.—*Antherura rubra*, Lour. ♄ Cochin China.—*Ronabea erecta*,

Aubl. ♄ Guiana.—*Antonia ovata*, Pohl. ♄ Brazil.—*Psychotria leiocarpa*, Cham. and Schlecht. ♄ Tropical Brazil.—*P. formosa*, Cham. and Schlecht. ♄ Tropical Brazil.—*P. Mapuria*, Röm and Sch. ♄ Guiana.—*P. Simira*, Röm. and Sch. ♄ Guiana.—*P. mollis*, Poir. ♄ Mexico.—*P. aureola*, Bartl. ♄ Mexico.—*P. nervosa*, Swz. ♄ Jamaica.—*P. capitellata*, DC. ♄ Trinidad.—*P. Roxburghii*, DC. ♄ Moluccas.—*P. malayana*, Jack. (P. aurantiaca, Wall.) ♄ Penang.—*Palicourea Selloviana*, DC. ♄ Rio Janeiro.—*P. crocea*, Röm and Sch. ♄ Trinidad.—*P. triphylla*, DC. ♄ Guiana.—*P. coccinea*, DC. ♄ Portorico.—*Chasalia capitata*, DC. ♄ Mauritius.—*C. coffeoïdes*, DC. ♄ Mauritius.—*C. Fontanesii*, DC. ♄ Mauritius.

K. CEPHAËLIDEÆ, Cham. and Schlecht.

(*DC. pr.* 4, *p.* 532.)

GEOPHILA, D. Don. (*DC. pr.* 4, *p.* 537;—*G. Don's Mill. dict.* 3, *p.* 608;—*W. and A. pr.* 1, *p.* 436.)

1. *reniformis*, D. Don. (*pr. fl. nep. p.* 136;—*DC. l. c.*;—*G. Don. l. c.*;—*W. and A. l. c.*;—*Wight. icon.* 1, *t.* 54;—*Cham. and Schlecht.*—G. diversifolia, *DC.? l. c.*—Psychotria herbacea, *L.*;—*Roxb. fl. ind.* 1, *p.* 533; *ed. Carey*, 2, *p.* 161;—*J. Grah. Cat. B. pl. p.* 92;—*Rheed.* 10, *t.* 21.) ♃. S. Concan. Khassya Mountains. Nepal. Fl. small, pure white, inodorous, May and June; fr. 0.

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* *Cephaëlis tomentosa*, Willd. ♄ Guiana. Trinidad.—*C. punicea*, Willd. ♄ Jamaica.—*C. ruelliæfolia*, Cham. and Schlecht. ♄ Equinoctial Brazil.—*C. justiciæfolia*, Rudge. ♄ Banks of rivers in Guiana.—*C. violacea*, Willd. ♄ Humid places in Guiana.—*C. Evea*, DC. ♄ Woods in Guiana.—*C. Ipecacuanha*, A. Rich. ♃. Brazil. Ipecacuanha-plant.—*Carapichea Aubletii*, DC. ♄ Guiana.—*Suteria calycina*, DC. ♄ Brazil.—*Patabea coccinea*, Aubl. ♄ Guiana.

L. SPERMACOCEÆ, Cham. and Schlecht.

(*DC. pr.* 4, *p.* 538;—*W. and A. pr.* 1, *p.* 436.)

CEPHALANTHUS, L. (*DC. pr.* 4, *p.* 538;—*G. Don's Mill. dict.* 3, *p.* 610.)

1. *naucleoïdes* DC. (*o. c. p.* 539;—*G. Don. l. c.*—Nauclea tetrandra, *Roxb. fl. ind.* 1, *p.* 516; *ed. Carey*, 2, *p.* 125.) 5 Silhet. Fl. small, yellow, very fragrant, H. S.; fr. C. S.

SPERMACOCE, L. (*DC. pr.* 4, *p.* 552;—*G. Don's Mill. dict.* 3, *p.* 619;—*W. and A. pr.* 1, *p.* 438.)

1. *tenuior*, L. (*DC. l. c.*;—*G. Don. l. c.*) ⊙ W. Indies. Peru. Panama. Carolina.—Fl. small, white, R. and C. S.; fr. C. S. Domesticated about Serampore.

2. *hispida*, L. (*DC. pr.* 1, *p.* 555;—*G. Don's Mill. dict.* 3, *p.* 621;—*W. and A. pr.* 1, *p* 436;—*Roxb. fl. ind.* 1, *p.* 373; *ed. Carey*, 1, *p.* 379;—*J. Grah. Cat. B. pl. p.* 93.—S. hirta, *Röttl.*—S. scabra, *Willd.*;—*DC. l. c.*;—*G. Don. l. c.*;—*Roxb. fl. ind.* 1, *p.* 371; *ed. Carey*, 1, *p.* 377;—*Rheed.* 9, *t.* 76;—*Burm. zeyl. t.* 20, *f.* 3.) ⊙ Ceylon. Penin-

sula of India. Bengal, (Serampore,) &c. Fl. small, purple, and fr. nearly the whole year.

3. *articularis*, L. (*DC. pr.* 4, *p.* 555;—*G. Don's Mill. dict.* 3, *p.* 621;—*W. and A. pr.* 1, *p.* 438;—*Roxb. fl. ind.* 1, *p.* 572; *ed. Carey*, 1, *p.* 378;—*J. Grah. Cat. B. pl. p.* 93.) ⊙ Peninsula of India. Amherst. Fl. small, white, and fr. nearly the whole year.

? 4. *semierecta*, Roxb. (*fl. ind.* 1, *p.* 371; *ed. Carey*, 1, *p.* 377;—*DC. pr.* 4, *p.* 556;—*G. Don's Mill. dict.* 3, *p.* 621.) ♂. Sumatra. Fl. small, white. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

? 5. *costata*, Roxb. (*fl. ind.* 1, *p.* 370; *ed. Carey*, 1, *p.* 376, excl. syn. L.—*DC. pr.* 4, *p.* 556;—*G. Don's Mill. dict.* 3, *p.* 621.) ♂. ♃. Fl. very small, pale rose-coloured. In H. C. G. fl. and fr. the whole year. (*Roxb.*)

Knoxia, L. (*DC. pr.* 4, *p.* 569;—*G. Don's Mill. dict.* 3, *p.* 628;—*W. and A. pr.* 1, *p.* 439.)

1. *corymbosa*, Willd. (*Sp.* 1, *p.* 582;—*W. and A. l. c.*—K. teres, *DC. l. c.*;—*G. Don. o. c. p.* 629.—K. umbellata, *Herb. Banks*;—*Spreng.*—K. exserta, *DC. l. c.*;—*G. Don. l. c.*—Spermacoce teres, *Roxb. fl. ind.* 1, *p.* 367; *ed. Carey*, 1, *p.* 373.—S. exserta *Roxb. fl. ind.* 1, *p.* 368; *ed. Carey*, 1, *p.* 374.—S. sumatrensis, *Retz.*; according to Cham. and Schlecht.) ♄ Circars. Dindygul. Colamala. Courtallum. Bengal, (Serampore.) Fl. small, white, tinged with purplish, R. S.; fr. C. S.

2. *lævis*, DC. (*pr.* 4, *p.* 570;—*G. Don's Mill. dict.* 3, *p.* 629.—Spermacoce lævis, *Roxb. fl. ind.* 1, *p.* 368; *ed. Carey*, 1, *p.* 374;—*Wight. icon.* 1, *p.* 193.—S. Roxburghiana, *Schult. Mant.* 3, *p.* 199.—S. Roxburghii, *Spreng.*) ♂. Fl. middle-sized, pale rose. Interior of Bengal. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

Serissa, Commers. (*DC. pr.* 4, *p.* 575;—*G. Don's Mill. dict.* 3, *p.* 633; *W. and. A. pr.* 1, *p.* 440.)

1. *fœtida*, Commers. (*DC. l. c.*;—*G. Don.. l. c.*;—*W. and A. o. c. p.* 441;—*Roxb. fl. ind.* 1, *p.* 579; *ed. Carey*, 2, *p.* 268;—*J. Grah. Cat. B. pl. p.* 93.—Dysoda fasciculata, *Lour.*—D. fœtida, *Salisb.*—Bucchosia coprosmoïdes, *L'Herit.*—Lycium japonicum, *Thunb. fl. jap. t.* 17;—*B. M.* 11, *t.* 361.—L. indicum, *Retz.*—L. fœtidum, *L. f. suppl.*) তারামণি *Taramuni*. ♄ China. Japan. Cultivated in Cochin China. India. Mauritius, W. Indies. &c. Fl. small, white, fœtid, C. S.; fr. March.

β. *plena*.—Fl. double, throughout the year.

Hydrophylax, L. fil. (*DC. pr.* 4, *p.* 576;—*G. Don's Mill. dict.* 3, *p.* 633;—*W. and A. pr.* 1, *p.* 441.)

1. *maritima*, L. fil. (*DC. l. c.*;—*G. Don. l. c.*;—*Roxb. Corom.* 3, *t.* 233; *fl. ind.* 1, *p.* 373; *ed. Carey*, 1, *p.* 380;—*W. and A. l. c.*;—*J. Grah. Cat. B. pl. p.* 93.—Sarissus anceps, *Gärtn. fr.* 1, *p.* 118, *t.* 25, *f.* 4.—Diodia orientalis, *Kön. MSS.*) ♃. Sand-hills along the shores of Coro-

mandel and Malabar. Fl. small, pale rose-coloured, and fr. the whole year.

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* *Cephalanthus Sarandi*, Cham. and Schlecht ♄ Brazil.—*Democritea serissoïdes*, DC. ♄ China.—*Borreria globularioïdes*, Cham. and Schlecht. ♄ Equinoctial Brazil.—*B. verticillata*, Meyer. ♄ Jamaica. Trinidad.—*B. podocephala*, DC. ♄ Mexico.—*B. distans*, Cham. and Schlecht. ♃. Mexico.—*Spermacoce riparia*, Cham. and Schlecht. ♃. Brazil, on the banks of Rio Negro.—*S. longifolia*, Aubl. ♄ Guiana.—*Hexasepalum angustifolium*, Bartl. ♄ Mexico.—*Diodia scandens*, Swz. ♄ ◡ St. Domingo.—*D. sarmentosa*, Swz. ♄ ◡. Jamaica.—*D. grandiflora*, DC. ♄ St. Domingo.—*D. discolor*, DC. ♄ Surinam.—*Triodon anthospermoides*, Cham. and Schlecht. ♄ Equinoctial Brazil.—*Crusea rubra*, Cham. and Schlecht. (Spermacoce strigosa, Sims.; B. M. 38, t. 1558.) ⊙ Cuba. Vera Cruz.—*C. coccinea*, DC. ♃. New Spain.—*Richardsonia scabra*, St. Hil. ♃. Rio Janeiro.—*R. adscendens*, DC. ♃. Mexico.—*R. Hänkeana*, DC. ♃. Mexico.—*Knoxia mollis*, R. Br. ♄ Hindoosthan. Nepal. Circars.—*Psyllocarpus asparagoïdes*, Mart. ♄ Brazil.—*P. schizanguis*, Lindl. ♄ Mexico.—*P. sagræanus*, Lindl. ♄ Havannah.—*Stelia thymoïdes*, Cham. and Schlecht. ♃. Brazil.—*Machaonia brasiliensis*, Cham. and Schlecht. ♄ Brazil.—*Ernodea littoralis*, Swz. ♄ W. Indies.—*Cuncea trifida*, Buch. ♃. Nepal.—*Scyphiphora hydrophylacea*, Gärtn. ♄ Moluccas.

M. Operculariëæ, A. Rich.

(*DC. pr.* 4, *p.* 614.)

Myrioneuron, R. Br.

1. *nutans*, Wall. ♄ Khassya Hills, 1822.

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* *Lipostoma campanuliflorum*, D. Don.; B. M. 55, t. 2840. ♃. Rio Janeiro.—*L. capitatum*, D. Don. ♃. Brazil.—*L. sericeum*, D. Don. ♃. Brazil.

Incertæ sedis.

* *Canephara axillaris*, Lam. ♄ Madagascar.—*Deppea hetyotidea*, DC. ♄ Mexico.—*Psilobium nutans*, Jack. ♄ Sumatra.—*Alseis floribunda*, Schott. ♄ Brazil.—*Breonia madagascariensis*, A. Rich. ♄ Madagascar.—*Lecananthus erubescens*, Jack. ♄ Singapore.—*Jackia ornata*, Wall. pl. as. rar. 3, t. 293. L. ♄ Singapore.

ORDER CLXXXII.—LYGODYSODEACEÆ, Bartl.—Lindl. Nat. Syst. p. 247.

Twining shrubs, of one genus, *Lygodysodea*, Ruiz. and Pav. and 2 species, one Peruvian, the other Mexican. Properties unknown.

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* *Lygodysodea ciliata*, Bartl. ♄ ◡ Mexico.

ORDER CLXXXIII.—LONICERACEÆ (CAPRIFOLIACEÆ, Lindl. Nat. Syst. p. 247.)

THE HONEYSUCKLE TRIBE.

Herbs or shrubs, often twining, seldom arborescent, by Lindl. referred to 15 genera. Of these, DC. pr. enumerates 32 species from N. America; 15 from Europe; 14 from S. America, Mexico, and the W. Indies; 9 from Japan; 5 or more from China; 4 from Siberia; 3 from N. Holland and the South Sea Islands; 3 from Iberia; 2 from N. Africa; 2 from the Canaries; 1 from Abyssinia; 1 from Terra Nova; 1 from Dahuria; and 1 from Tartary. In the E. Indies have been discovered, according to DC., Wall. Cat. and Royl. ill., 62 species; viz., 1 of *Triosteum;* 25 of *Lonicera;* 1 of *Leycesteria;* 1 of *Abelia;* 1 of *Aidia, (Lour.);* 2 of *Mastixia;* 1 of *Diacicarpium;* 3 of *Polyosma;* 6 of *Sambucus;* and 22 of *Viburnum;* all natives of the Himalayas, the Khassya Mountains, the Neelgherries, the Mountains of Penang, Java and Cochin China, and several of them also common to China and Japan. The Elders and Honeysuckles are well known. Properties in general unimportant.

LONICERA, L. (*DC. pr.* 4, *p.* 330;—*G. Don's Mill. dict.* 3, *p.* 444;—*W. and A. pr.* 1, *p.* 389.) *Honeysuckle.*

1. *Periclymenum*, L. (*DC. o. c. p.* 331;—*G. Don. o. c. p.* 445;—*E. B.* 12, *t.* 800;—*Roxb. H. B. p.* 15.—Periclymenum vulgare, *Mill. dict. No.* 6.—Caprifolium distinctum, *Mönch.*—C. Periclymenum, *Röm. and Sch.*—C. sylvaticum, *Lam.*) *Common Honeysuckle. Woodbine.* ♄ ⌒ Hedges, groves, and thickets of middle Europe. Fl. large, deep rose-buff coloured, H. and R. S.; fr. 0.
2. *sempervirens*, Ait. (*DC. pr.* 4, *p.* 332;—*G. Don's Mill. dict.* 3, *p.* 446;—*Roxb. H. B. p.* 15;—*J. Grah. Cat. B. pl. p.* 86.) *Trumpet Honeysuckle.* ♄ ⌒ N. America, in stony dry woods, from New York to Carolina.
   β. *minor*, Ait. (*B. M.* 42, *t.* 1753;—*B. Reg.* 7, *t.* 556.) Fl. large, deep red, March and April; fr. 0.
3. *macrantha*, DC. (*pr.* 4, *p.* 333;—*G. Don's Mill. dict.* 3, *p.* 446.—L. japonica, *Wall.*;—*Roxb. fl. ind.; ed. Carey*, 2, *p.* 174, excl. syn.—Caprifolium macranthum, *D. Don. pr. fl. nep. p.* 140.—Xylosteon scandens, *Buch. MSS.*) ♄ ⌒ Khassya Mountains. Nepal. Fl. large, white, becoming yellow, sweet-scented, March and April; fr. 0.
4. *japonica*, Thunb. (*fl. jap. p.* 89;—*G. Don's Mill. dict.* 3, *p.* 447.—L. flexuosa, *Lodd. B. Cab. t.* 1037;—*B. Reg.* 9, *t.* 712; not Thunb.—L. chinensis, *Wats. dendr. brit. t.* 117;—*DC. pr.* 4, *p.* 333; excl. syn. Wall.—*B. M.* 61, *t.* 3316;—*J. Grah. Cat. B. pl. p.* 87.—Nintooa japonica, *Swt.*) ♄ ⌒ Japan. China. Fl. large, white, gradually changing to a golden yellow, purple-dotted, delightfully fragrant, more or less, throughout the year; fr. 0.

5. *Leschenaultii*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 178;—*DC. pr.* 4, *p.* 334;—*G. Don's Mill. dict.* 3, *p.* 447;—*W. and A. pr.* 1, *p.* 389;—*J. Grah. Cat. B. pl. p.* 87.) ♄ ⌒ Neelgherries. Fl. large, white, becoming yellow, sweet-scented, March and April; fr. 0.

Sambucus, Tournef. (*DC. pr.* 4, *p.* 321;—*G. Don's Mill. dict.* 3, *p.* 436;—*W. and A. pr.* 1, *p.* 387.)

1. *Ebulus*, L. (*DC. o. c. p.* 5;—*G. Don. l. c.*;—*Roxb. H. B. p.* 22;—*E. B.* 7, *t.* 475.—S. humilis, *Lam.*) *Dwarf-elder.* ♃. Cultivated and fertile places in Europe, even to Caucasus. Fl. smallish, dull blood-red, R. S.; fr. C. S. (*Roxb.*) Its qualities are violently purgative, sometimes emetic. The whole plant is fœtid.
2. *nigra*, L. (*DC. l. c.*;—*G. Don. l. c.*;—*Roxb. H. B. p.* 22;—*E. B.* 7, *t.* 476.—S. vulgaris, *Lam.*) *Common Elder.* ♄ Europe. Caucasus. Siberia. Fl. small, white. Was introduced into H. C. G. in 1799, but had not fl. up to 1814.

Viburnum, L. (*DC. pr.* 4, *p.* 323;—*G. Don's Mill. dict.* 3, *p.* 438;—*W. and. A. pr.* 1, *p.* 388.)

1. *punctatum*, Buch. (*D. Don. pr. fl. nep. p.* 142;—*DC. pr.* 4, *p.* 324;—*G. Don's Mill. dict.* 3, *p.* 439.—V. odoratum, *Wall. MSS.*) ♄ Nepal. Fl. small, white, fragrant, March and April; fr. 0.
2. *Colebrookianum*, Wall. (*Cat.*—*DC. pr.* 4, *p.* 325;—*G. Don's Mill. dict.* 3, *p.* 439.) ♄ Khassya Mountains. In H. C. G. Fl.?
3. *cotinifolium*, D. Don. (*pr. fl. nep. p.* 141;—*DC. pr.* 4, *p.* 328;—*G. Don's Mill. dict.* 3, *p.* 441;—*B. Reg.* 19, *t.* 1650.—V. polycarpum, *Wall. Cat.*;—*DC. o. c. p.* 328;—*G. Don. o. c. p.* 443.) ♄ Himalayas, at elevations of from 5000 to 7000 f., in 30° N. lat. Fl. small, white, tinged with rose. Has very much the appearance of V. Lantana, L., *the English Wayfaring-tree.* (*Lindl.*) In H. C. G. Fl.?
4. *adenophyllum*, Wall. MSS. In H. C. G. Fl.? Native place?

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* *Diervilla japonica*, DC. ♄ Japan.—*Lonicera Caprifolium*, L.; E. B. 12, t. 799. ♄ ⌒ Middle and South Europe.—*L. etrusca*, Santi. ⌒ S. ♄ Europe.—*L. implexa*, Ait. B. M. 17, t. 640. ♄ ⌒ Sicily.—*L. flava*, Sims. B. M. 32, t. 1318. ♄ ⌒ S. Carolina.—*L. sempervirens*, Ait. *a. major;* B. M. 20, t. 781.—*L. confusa*, DC. (L. japonica, Andr.; B. Reg. 1, t. 70, not Thunb.) ♄ ⌒ China. Japan.—*L. longiflora*, DC. (Caprifolium longiflorum, Lindl. B. Reg. 15, t. 1232.) ♄ ⌒ China. Nepal.—*L. Telfairii*, Hook. and Arn. ♄ ⌒ China.—*L. Xylosteum*, L.; E. B. 13, t. 916. ♄ ⌒ Europe.—*L. gibbosa*, Willd. ♄ Mexico.—*L. Mociniana*, DC. ♄ Mexico.—*Abelia chinensis*, R. Br. ♄ China.—*Sambucus chinensis*, Lindl. ♃. China.—*S. australis*, Cham. and Schlecht. ♄ Brazil.—*S. racemosa*, L.; Jacq. icon. rar. 1, t. 59. ♄ S. Europe.—*S. ebuloïdes*, Desv. ♄ Canton.—*Viburnum Tinus*, L.; B. M. 2, t. 38. ♄ S. Europe. (*Laurestina.*)—*V. integerrinum*, Wall. ♄ Penang.—*V. acuminatum*, Wall. ♄ Neelgherries.—*V. nervosum*, Hook. and Arn. ♄ China.—*V. fœtidum*, Wall. pl. as. rar. 1, t. 61. ♄ Taong-

Dong.—*V. odoratissimum*, Ker.; B. Reg. 6, t. 456. ♄ China.—*V. Lantana*, L.; E. B. 5, t. 331. ♄ Europe.—*V. Mullaha*, Buch. (V. stellatum, Wall. pl. as. rar. 2, t. 169.) ♄ Deyrah-Dhoon.—*V. Opulus*, L.; E. B. 5, t. 332. ♄ Europe.—*V. microcarpum*, Cham. and Schl. ♄ Mexico.

ORDER CLXXXIV.—GALIACEÆ, Lindl. Nat. Syst. p. 249.

THE MADDER TRIBE.

Herbs, by Lindl. referred to 7 genera, of these, DC. assigns 112 species to Europe; 43 to S. America, Mexico, and the W. Indies; 16 to N. America; 12 to the Levant; 10 to Tauria; 10 to S. Africa; 8 to Persia; 8 to N. Africa; 3 to Caucasus; 3 to Iberia; 3 to the Canaries; 2 to New Holland; 1 to Japan; 1 to Arabia; and 1 to Tartary. In the E. Indies have been discovered, according to DC., W. and A., Wall. Cat., and Royl. ill., 17 species, viz., 5 of *Rubia;* 1 of *Asperula;* and 11 of *Galium*, mostly natives of the Himalayas, the Khassya Mountains and Kunawur; two from Java, 1 from Dindygul-hills and 1 from Cochin China. *Madder* is the only product of the order.

Sherardia, Dill. (*DC. pr.* 4, *p.* 581;—*G. Don's Mill. dict.* 3, *p.* 637.)

1. *arvensis*, L. (*DC. l. c.*;—*G. Don. l. c.*;—*E. B.* 13, *t.* 891.) ⊙ Europe. Tauria. Fl. small, purplish-blue, Feb.; fr. March.

Asperula, L. (*DC. pr.* 4, *p.* 581;—*G. Don's Mill. dict.* 3, *p.* 637.)

1. *arvensis*, L. (*DC. l. c.*;—*G. Don. l. c.*) ⊙ Europe. Fl. small, blue, March.

Crucianella, (*DC. pr.* 4, *p.* 586;—*G. Don's Mill. dict.* 3, *p.* 640.)

1 *angustifolia*, L. (*DC. l. c.*;—*G. Don. o. c. p.* 641.) ⊙ From Spain and Mauritiana to Tauria. Fl. small, yellowish-green, March.

Rubia, Tournef. (*DC. pr.* 4, *p.* 588;—*G. Don's Mill. dict.* 3, *p.* 642;—*W. and A. pr.* 1, *p.* 442.)

1. *cordifolia*, L. (*DC. l. c.*;—*G. Don. l. c.*;—*W. and A. l. c.*;—*Wight. icon.* 1, *t.* 187;—*J. Grah. Cat. B. pl. p.* 93.—R. Munjista, *Roxb. fl. ind.* 1, *p.* 374; *ed. Carey*, 1, *p.* 383;—*DC. l. c.*;—*G. Don. l. c.*) 4. Neelgherries. Dindygul. Mahableshwur. Taong-Dong. Khassya Mountains. Bhootan. Nepal. Japan. Siberia. Roots, stems and larger branches, (*Indian Madder*,) used to dye red with. Was introduced into H. C. G. in 1801, but had not fl. up to 1814.

Galium, Scop. (*DC. pr.* 4, *p.* 593;—*G. Don's Mill. dict.* 3, *p.* 647;—*W. and A. pr.* 1, *p.* 442.)

1. *anglicum*, Huds. (*DC. o. c. p.* 607;—*G. Don. o. c. p.* 657;—*E. B.* 6, *t.* 384.) ⊙ England. France. Sicily. Caucasus. Fl. very small, pale greenish-yellow, Feb.
2. *tricorne*, Withering. (*DC. pr.* 4, *p.* 608;—*G. Don's Mill. dict.* 3, *p.* 658;—*E. B.* 23, *t.* 1641.) ⊙ Cornfields of Europe. Caucasus. Fl. very small, cream-coloured, Feb. and March.

3. *Aparine*, L. (*DC. l. c.*;—*G. Don. l. c.*;—*E. B.* 12, *t.* 816.) ⊙ Hedges and fields of Europe. N. Asia, and N. America. Fl. small, pale buff, Feb. and March.

ORDER CLXXXV.—CALYCERACEÆ, Lindl. Nat. Syst. p. 251.

Herbs of 3 genera, and 10 species, all natives of S. America. Properties unknown.

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* *Calycera Cavanillesii*, Rich. ♃. Chili.—*C. balsamitæfolia*, Rich. ♃. Chili.—*Boopis anthemoïdes*, Juss. ♃. Buenos Ayres.—*Acicarpha spathulata*, R. Br. ♄ Rio Janeiro.

ORDER CLXXXVI.—MATRICARIACEÆ, (COMPOSITÆ, Vaill.—DC. pr. 5, p. 4.—Lindl. Nat. Syst. p. 251.)

Herbs, oftener perennial, or shrubs, or more seldom trees, spread all over the globe. DC. pr. with addenda, enumerates, under 898 genera, the following species, viz.

	Vernoniëæ.	Eupatoriëæ.	Asteriëæ.	Senecioniëæ.	Cynarææ.	Mutisiëæ.	Nassauviëæ.	Cichoriëæ.	Total.
S. America, Mexico, and the W. Indies, about,	340	520	458	945	10	167	115	37	2592
S. Africa,	21	10	216	877	373	26	0	10	1533
Europe,	0	14	76	293	310	0	0	395	1088
N. America,	12	65	328	290	18	1	1	80	795
E. Indies,	65	32	206	217	54	10	0	65	650
New Holland, and the South Sea Islands,	1	6	106	224	3	1	0	2	343
Siberia,	0	2	27	94	58	1	0	37	219
Dahuria, Iberia, Tauria & Caucasus,	0	1	21	64	83	0	0	48	217
Orient,	0	1	15	54	70	0	0	32	172
N. Africa,	0	1	21	47	42	0	0	35	146
Madagascar,	18	5	20	65	0	2	0	3	113
Persia,	1	0	8	22	68	0	0	12	110
Canaries, Azores and Madeira,	0	0	11	26	11	0	0	26	74
Mascarenhas Islands,	4	1	22	27	0	0	0	5	59
China,	0	3	12	28	13	2	0	9	67
Nubia, Senegal, Guinea and Congo,	10	1	22	12	2	1	0	3	51
Arabia,	2	1	17	10	6	1	0	3	40
Japan,	0	1	6	9	3	2	0	10	31
Magellan Straits,	0	0	6	3	0	0	8	0	17
Juan Fernandez,	0	0	1	5	0	0	0	8	14
St. Helena,	0	0	6	4	0	0	0	0	10
Timor,	2	0	5	3	0	0	0	0	10
Zanzibar and Mozambique,	2	0	2	5	0	1	0	1	11
Falkland Islands,	0	0	0	4	0	0	0	2	6
Melville Island,	0	1	0	1	0	0	0	0	2
Tristan d'Acunha,	0	0	0	1	0	0	0	0	1

The E. Indian Compositæ are distributed among the following genera thus:—

VERNONIËÆ.

Oiospermum ?	1.	(Peninsula of India.)
Ethulia,	1.	(Bengal, &c.)
Vernonia,	46.	(Java. Neelgherries. Nepal, &c.)
Decaneurum,	11.	(Java. Neelgherries. Dindygul. Khassya Mountains. Moluccas.)
Cyanopis,	3.	(Java. Burma. Moluccas.)
Monosis,	1.	(Neelgherries.)
Elephantopus,	1.	(All India.)

EUPATORIËÆ.

Ageratum,	1.	(Bengal, &c.)
Adenostemma,	19.	(Java. Moluccas. Ceylon. Dindygul. Bengal. Khassya Mountains. Nepal.)
Eupatorium,	9.	(Nepal. Khassya Mountains. Burma. Penang. 1 Cochin China. (*Lour.*)
Mikania,	2.	(Java. Penang. Singapore. Nepal.)
Tussilago,	1.	(Himalayas.)

ASTERIËÆ.

Aster ?	1.	(Neelgherries ?)
Galatella,	1.	(Himalayas.)
Calimeris,	1.	(Mussooree.)
Callistephus,	2.	(Dindygul.)
Diplopappus,	4.	(Nepal. Kemaon.)
Leptocoma,	1.	(Nepal.)
Fullartonia,	1.	(Kemaon.)
Heterochæta,	3.	(Himalayas.)
Erigeron,	13.	(Nepal. Peerpunjal. Neelgherries. Tanjore. Bengal. (2 uncertain; Retz. and Lour.)
Rhynchospermum,	1.	(Java.)
Stenactis,	2.	(Nepal.)
Asteromæa,	1.	(Java ?)
Myriactis,	5.	(Nepal. Java. Neelgherries.)
Microglossa,	1.	(Java. Penang. Moluccas.)
Amphirrapis,	7.	(Nepal. Khassya Mountains. Ceylon.)
Blepharispermum,	2.	(Peninsula of India.)
Athroisma,	1.	(Martaban, at Trogla.)
Sphæranthus,	5.	(Java. Luçon. Penang. Travancore. Bengal. Khassya Mountains. Negapatam. 1 uncertain, Lour.)
Dicrocephala,	4.	(Himalayas. Java.)
Grangea,	1.	(Peninsula of India. Bengal, &c.)
Cyathocline,	2.	(Nepal. Prome. Madras.)
Thespis,	2.	(Khassya Mountains.)

Berthelotia, ... 1. (Banks of the Jumna.)

Conyza, ... 24. (Nepal. Khassya Mountains. Oude. Hurdwar. Martaban. Travancore. (9 uncertain. Lam. (Roxb.)

Blumea, ... 78. (All over the E. Indies.)

Pluchea, ... 6. (Luçon. Martaban. Mysore. Shrinagur.)

Epaltes, ... 5. (Peninsula of India. Prome.)

Inula, ... 12. (Himalayas. Khassya Mountains. Prome.)

Vicoa, ... 4. (Ceylon. Both Peninsulas of India.)

Francoeuria, ... 1. (Banks of the Ganges, in Behar.)

Pulicaria, ... 3. (Seringapatam. Patna. Himalayas.)

Cæsulia, ... 1. (Tanjore. Nepal.)

Buphthalmum ? . . . . . 1. (Cochin China. Lour.)

Eclipta, ... 4. (Moluccas. Java. Peninsula of India. Bengal, &c.)

Blainvillea, ... 1. (Dindygul. Monghir.)

Siegesbeckia, ... 2. (Dindygul. Circars.)

? Placus, ... 2. (Cochin China. Lour.)

SENECIONIÆÆ.

Melampodium, ... 1. (Luçon.)

Xanthium, ... 2. (India. Java.)

Moonia, ... 1. (Ceylon.)

Wedelia, ... 2. (All over India.)

Wollastonia, ... 5. (Both Peninsulas of India. Khassya Mountains. Java. Moluccas.)

Guizotia, ... 1. (Lower Bengal.)

Sclerocarpus, ... 1. (Mussooree.)

Helianthus ? . . . . . 1. (Cochin China. Lour.)

Bidens, ... 5. (Nepal. Both Peninsulas of India. Java. Bengal.)

Verbesina ? . . . . . 1. (Cochin China. Lour.)

Spilanthes, ... 5. (Java. Martaban. Mysore. Moluccas. Bengal.)

Chrysanthellum, ... 1. (Sukanaghur.)

Neuractis, ... 1. (Java.)

Glossocardia, ... 1. (Madras. Carnatic.)

Glossogyne, ... 1. (Gorukpur.)

Enhydra, ... 4. (Cochin China. Java. Bengal. Assam.)

Porophyllum, ... 3. (Luçon. Nepal.)

Calea ? . . . . . 1. (Cochin China. Lour.)

Achillea, ... 1. (Kemaon.)

Matricaria, ... 1. (Cashmere. Scarcely Indian.)

Pyrethrum, ... 2. (One all over India ; the other from Cashmere.)

Chrysanthemum, ... 1. (Bengal.)

Artemisia, ... 28. (Himalayas. Khassya Mountains. Prome. Moluccas. Cashmere. 3 uncertain.)

Chrysostephium, ... 1. (Luçon.)
Tanacetum, ... 5. (Himalayas.)
Myriogyne, ... 1. (Java. Peninsula of India. Bengal.)
Sphæromorphæa, ... 2. (Cochin China. Peninsula of India.)
Machlis, ... 1. (Nepal. Khassya Mountains. Bengal.)
Helichrysum, ... 4. (Shrinagur. Neelgherries. Ceylon. Cochin China. 2 uncertain.)
Gnaphalium, ... 9. (Himalayas. Khassya Mountains. Hurdwar. Neelgherries. Java. Bengal. Cochin China. 1 uncertain.)
Filago, ... 1. (Negapatam. Patna.)
Antennaria, ... 7. (Himalayas. Java.)
Anaphalis, ... 21. (Himalayas. Khassya Mountains. Neelgherries. Ceylon. Java.
Leontopodium, ... 1. (Himalayas.)
Carpesium, ... 7. (Himalayas. 1 from Travancore.)
Gynura, ... 17. (Himalayas. Khassya Mountains. Peninsula of India. Irrawaddy. Java. Moluccas. 1 uncertain.)
Emilia, ... 5. (Khassya Mountains. Bengal. Peninsula of India. Philippines.)
Ligularia, ... 7. (Himalayas.)
Doronicum, ... 7. (Himalayas. Khassya Mountains. Neelgherries. Travancore. Ceylon.)
Cacalia ? . . . . . 1. (Java.)
Senecio, ... 46. (Himalayas. Kunawur. Cashmere. Khassya Mountains. Neelgherries. Ceylon. Taong-Dong. Java. Madras. 1 uncertain.)
Madaractis, ... 4. (Peninsula of India.)
Notonia, ... 3. (Neelgherries. Travancore. Dindygul. Ava.)

CYNARÆÆ.

Echinops, ... 3. (Himalayas. Benares. Mysore.)
Saussurea, ... 2. (Himalayas.)
Aplotaxis, ... 21. (Himalayas. Khassya Mountains. 1 from Lower Bengal.)
Dolomiæa, ... 1. (Himalayas.)
Amberboa, ... 4. (Two from the Himalayas. 2 from the Peninsula of India.)
Microlonchus, ... 1. (Himalayas.)
Tricholepis, ... 5. (Himalayas. Mysore. Travancore. Bombay.)
Centaurea, ... 2. (One cultivated in Indian gardens ; the other Lour.)
Kentrophyllum, ... 1. (Banks of the Jumna.)
Onobroma, ... 1. (West of India.)

Carthamus,	1.	(Moluccas, &c.)
Carduus,	1.	(Choor.)
Cirsium,	6.	(Himalayas. Neelgherries. 1 uncertain.)
Lappa,	1.	(Himalayas.)
Echenais,	1.	(Himalayas.)
Serratula,	3.	(Two from the Himalayas, 1 from Cochin China, 2 of these uncertain.)
Jurinea ?	1.	(Himalayas.)
		MUTISIËÆ.
Ainsliëa,	2.	(Himalayas.)
Gerbera,	1.	(Himalayas.)
Oreoseris,	3.	(Himalayas.)
Berniera,	1.	(Himalayas.)
Leucomeris,	2.	(Himalayas.)
Dicoma,	1.	(Madras. Yenangheun.)
		CICHORIËÆ.
Cichorium,	1.	(Himalayas. Patna.)
Tragopogon,	1.	(Himalayas.)
Scorzonera,	3.	(Himalayas.)
Picris,	2.	(Himalayas.)
Lactuca,	12.	(Himalayas. Khassya Mountains. Neelgherries. Negapatam. Java.)
Chondrilla ?	1.	(Himalayas.)
Taraxacum,	3.	(Himalayas. Oude.)
Ixeris,	2.	(Himalayas.)
Barkhausia,	2.	(Himalayas.)
Brachyramphus,	3.	(N. India. Peninsula of India.)
Microrrhynchus,	3.	(Coromandel. Bengal. Oude. Kemaon.)
Sonchus,	7.	(All over India. Java.)
Youngia,	8.	(Himalayas. Silhet. Bengal. Peninsula of India. Java. 2 uncertain.)
Prenanthes,	7.	(Himalayas. Java. 1 uncertain.)
Hieracium,	2.	(Himalayas. Khassya Mountains. 1 uncertain.)
Dubya,	1.	(Himalayas.)
Mulgedium,	7.	(Himalayas.)

If we add to these E. Indian Compositæ the following species: *Eupatorium divergens*, Roxb. (Mysore); *Verbesina scandens*, Roxb. (Bengal); *Gnaphalium albo-luteum*, Roxb. (Bhootan); *Senecio moluccanus*, Roxb. (Moluccas); *Chrysanthemum cuneatum*, Roxb. (Moluccas); *Carduus ramosus*, Roxb.; *Apargia Hamones*, Buch, (Nepal); and *Prenanthes linifolia*, Roxb. (Bengal); their exact number will be 655.

Few of the E. Indian plants of this order are possessed of properties of much medical or dietetical importance. Whatever little is remarkable will be adverted to under the species.

A. TUBULIFLORÆ, *DC. o. c. p.* 8.

a. Vernoniëæ.

(Vernoniaceæ, *DC. o. c. p.* 9.)

ETHULIA, L. (*DC. o. c. p.* 12.)

1. *conyzoïdes*, L. (*Sp. p.* 1171;—*L. fil. dec.* 1, *t.* 1;—*DC. o. c. p.* 12;—*B. Reg.* 9, *t.* 695;—*Roxb. H. B. p.* 61.) ☉ Fl. light purple, small, and fr. C. S.

   a. indica; (E. ramosa, *Roxb. H. B. p.* 61; *fl. ind.* 3, *p.* 413.) Bengal.

VERNONIA, Schreb. (*DC. pr.* 5, *p.* 15.)

1. *cinerea*, Less. (*DC. o. c. p.* 24;—*J. Grah. Cat. B. pl. p.* 96.—Serratula cinerea, *Roxb. fl. ind.* 3, *p.* 406.—Conyza cinerea, *L.*—Chrysocoma violacea, *Schum. guin. p.* 158.—C. purpurea, *Forst.*—Conyza mollis, *Willd.*;—*Rheed.* 10, *t.* 64;—*Rumph.* 6, *t.* 14, *f.* 1;—*Burm. zeyl. t.* 96, *f.* 1.) ছোট কোকসিম *Chhoto-koksim.* ☉ Equatorial Africa. Java. Ceylon. Coromandel. Bombay Presidency. Bengal, (Serampore,) &c. Moluccas. Fl. small, light purple, and fr. Jan. Feb. and March.

2. *aspera*, Buch. (not Less.—*DC. pr.* 5, *p.* 31.—V. Roxburghii, *Less.*—Eupatorium asperum, *Roxb. fl. ind.* 3, *p.* 415.—E. pyramidale, *Don. pr. fl. nep. p.* 170?) ♄ Bengal, &c. Fl. small, purplish blue, C. S.; fr. H. S.

3. *multiflora*, Less. (*DC. pr.* 5, *p.* 31;—Conyza multiflora, *Wall. Cat.*) ♃. Prome. Penang. In H. C. G.

4. *vagans*, DC. (*pr.* 5. *p.* 32.—Eupatorium vagans, *Wall. Cat.*) ♃. ◡ Khassya Mountains. Fl. smallish, deep purple, fragrant, C. S.; fr. H. S.

5. *volkameriæfolia*, DC. (*pr.* 5, *p.* 32.—Conyza volkameriæfolia, *Wall. Cat.*) ♄ Nepal. In H. C. G.

6. *anthelminthica*, Willd. (*DC. pr.* 5, *p.* 61.—Conyza anthelminthica, *L.*—Serratula anthelminthica, *Roxb. fl. ind.* 3, *p.* 405;—*J. Grah. Cat. B. pl. p.* 96.—S. elegans, *Hb. Maurit.*—Baccharoïdes anthelminthica, *Mönch.*—Ascaridia indica, *Cass.*;—*Rheed.* 2, *t.* 24;—*Burm. zeyl. t.* 95.) সোম রাজ *Som-raj.* ☉ Mauritius. Ceylon. Peninsula of India. Bengal, (Serampore.) &c. Fl. purplish, C. S.; fr. March.

DECANEURUM, DC. (*pr.* 5, *p.* 66.)

1. *grande*, DC. (*pr.* 5, *p.* 67.—Vernonia grandis, *Bojer.*) ♄ Madagascar. Fl. lilac, C. S.

2. *fimbrilliferum*, DC. (*pr.* 5, *p.* 68.—Gymnanthemum fimbrilliferum, *Cass.*—Vernonia fimbrillifera, *Cass.*—Eupatorium coriaceum, *Vahl.*; not Spreng.) Fl. whitish, C. S.

CENTRANTHERUM, Cass. (*DC. pr.* 5, *p.* 70.)

1. *intermedium*, Less. (*DC. l. c.*—Ampherepis intermedia, *Lk. abbild.* 5, *t.* 29.—Spixia violacea, *Schrank. pl. rar. h. mon. t.* 80.) ☉ Brazil. Fl. purplish, C. S.; fr. March.

DISTEPHANUS, Cass. (*DC. pr.* 5, *p.* 74).

1. *populifolius*, Cass. (Conyza populifolia, *Lam.*—Vernonia populifolia, *Spreng.*) ♄ Mauritius. Has been introduced into H. C. G. Fl.?

ELEPHANTOPUS, L. (*DC. pr.* 5, *p.* 85.)

1. *scaber*, L. (*Sp. p.* 1313, excl. syn. Gron. and Brown;—*DC. pr.* 5. *p.* 86;—*Roxb. fl. ind.* 3, *p.* 445;—*J. Grah. Cat. B. pl. p.* 96.—*Rheed.* 10, *t.* 7.) সামদলন *Samdulun.* ♃. Timor. Java. Luçon. Both Peninsulas of India. Bengal, (Serampore.) Khassya Mountains. Nepal. Fl. pale red, C. S.; fr. H. S.

LAGASCA, Cav. (Lagascea, *H. B. and Kth.*—*DC. pr.* 5, *p.* 91.)

1. *mollis*, Cav. (*Annal. sc, nat.* 6, *p.* 333, *t.* 44.;—*DC. l. c.*;—*B. M.* 43, *t.* 1804;—*J. Grah. Cat. B. pl. p.* 96,—Noceæa mollis, *Jacq. frag. t.* 13.) ⊙ Hills of Cuba, and at St. Fé in Mexico. Fl. small, white, C. S.; fr. H. S.

LORENTEA, Less. (*DC. pr.* 5, *p.* 101; not Ort. nor Lag.)

1. *humifusa*, Less. (*DC. o. c. p.* 102.—Pectis humifusa, Swz.) ⊙ St. Cruz. Guadeloupe. Fl. small, yellow, C. S.; fr. H. S.

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* *Adenocyclus condensatus*, Less. ♄ Trinidad.—*Sparganophorus Vaillantii*, Gärtn. ⊙ W. Indies.—*Heterocoma albida*, Pers. ♄ Brazil.—*Vernonia celebica*, DC. 5 Woods of Celebes.—*V. arborea*, Buch. 5 Lower Nepal.—*V. elæagnifolia*, DC. ♄ Moulmein.—*V. elliptica*, DC. ♄ Neelgherries.—*V. sericea*, Rich.; B. Reg. 7. t. 522. ♃. Rio Janeiro.—*V. axilliflora*, Mart.; B. Reg. 17, t. 1464. 5 Brazil—*V. flexuosa*, Sims.; B. M. 51, t. 2477. ♃. Brazil.—*Decaneurum reticulatum*, DC. ♃. Neelgherries.—*D. dindygulense*, DC. ♃. Dindygul.—*Monosis Wightiana*, DC. 5 Neelgherries.—*Distrephus spicatus*, Cass. ♃. W. Indies.—*Rolandra argentea*, Rottl. ♄ Jamaica.—*Synchodendron ramiflorum*, Bojer. 5 Madagascar.—*Centauropsis fruticosa*, Bojer. ♄ Madagascar.—*Bojera speciosa*, DC. ♃. Madagascar.—*Liabum Brownei*, Cass. ♃. Jamaica.

b. Eupatoriëæ.

(Eupatoriaceæ, *Less.*; *DC. pr.* 5, *p.* 103.)

AGERATUM, L. (*DC. pr.* 5, *p.* 108.)

1. *conyzoïdes*, L. (*DC. l. c*;—*Hook. exot. fl. t.* 15.)

   δ. *cordifolium*, DC. (Ageratum cordifolium, *Roxb. fl. ind.* 3, *p.* 415.—A. conyzoides, *J. Grah. Cat. B. pl. p.* 98.) উচনতি *Oohchunti.* ⊙ Belgaum. Bombay. Bengal, (Serampore,) &c. Fl. small, pale purple, C. S; fr. March. Has an unpleasant smell.

ADENOSTEMMA, Forst. (*DC. pr.* 5, *p.* 110.)

1. *leiocarpum*. DC. (*o. c. p.* 113.—Ageratum aquaticum, *Roxb. fl. ind.* 3, *p.* 416.) বড় কেশতি *Buro-keshuti.* ⊙ Borders of the Circars. Bengal. Fl. small, white, Feb. and March; fr. C. S.

STEVIA, Cav. (*DC. pr.* 5, *p.* 115.)

1. *Eupatoria*, Willd. (*DC. o. c. p.* 118;—*B. M.* 43, *t.* 1849.—S. hyssopifolia, *Cav.*; *Lag.*; not Kth, nor Sims.—S. punctata, *Pers.*—Agera-

tum punctatum, *Oct.* not Jacq.—Mustelia Eupatoria, *Spreng.*) ♃. Mexico. Fl. white, tinged with rose, C. S.

2. *paniculata*, Lag. (*DC. pr.* 5, *p.* 120.—S. hyssopifolia, *Sims.*; *B. M.* 44, *t.* 1861; not Cav. nor Kth.) ♃. Mexico. Fl. purplish white, Feb. and March.

EUPATORIUM, Tournef. (*DC. pr.* 5, *p.* 141.)

1. *atriplicifolium*, Vahl. (*Symb.* 3, *p.* 96; not Lam.;—*DC. pr.* 5, *p.* 144.—E. triangulare, *Poir.*) ♄ St. Cruz. Fl. bluish-purple, Feb.; fr. March.

2. *triplinerve*, Vahl. (E. Ayapana, *Vent. Malm. t.* 3;—*DC. pr.* 5, *p.* 169;—*Roxb. H. B. p.* 61;—*J. Grah. Cat. B. pl. p.* 98.—E. triplinerve, *Vahl.*) ♃. Banks of the Amazon river. Fl. whitish, C. S. A good bitter. Leaves used as a substitute for tea at the Mauritius. (*J. Grah.*) In India and America formerly employed against snakes and snake-bites.

3. *cannabinum*, L. (*DC. pr.* 5, *p.* 180;—*E. B.* 6, *t.* 478.—E. trifoliatum, *Habl.* not L.) ♃. Ditches and inundated places of Europe and Tauria. Fl. pale purple, C. S.

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* *Piqueria trinervia*, Cav.; B. M. 53, t. 2650. ♃. Mexico.—*Isocarpha atriplicifolia*, R. Br, ♃. S. America.—*I. oppositifolia*, R. Br. ♃. Jamaica.—*Coelestina ageratoïdes*, H. B. and Kth. (Ageratum cœlestinum, Sims. B. M. 42, t. 1730.) ☉ Mexico.—*Adenostemma microcephalum*, DC, Goalpara.—*A. latifolium*, D. Don. (Ageratum strictum, Sims. B. M. 50, t. 2410.) ☉ Nepal.—*Sclerolepis verticillata*, Cass. ♃. Carolina.—*Stevia salicifolia*, Cav. ♄ Mexico.—*S. serrata*, Cav. ♃. Mexico.—*S. purpurea*, Pers. (S. Eupatoria, B. Reg. 2, t. 93; not Willd.) ♃. Mexico.—*Palafoxia linearis*, Lag.; B. M. 47, t. 2132. ♄ Mexico.—*Clavigera scoparia*, DC. ♃. Mexico.—*Conoclinium microphyllum*, DC. (Eupatorium microphyllum, L.) ♄ New Grenada.—*Hebeclinium macrophyllum*, DC. (Eupatorium macrophyllum, L.) ♄ Jamaica.—*Bulbostylis pendula*, DC. (Eupatorium pendulum, Schrad.) ♄ Mexico.—*Critonia Dalea*, DC. (Eupatorium Dalea, L.) ♄ Jamaica.—*Eupatorium macranthum*, Swz. ♄ Martinique.—*E. odoratum*, L. ♄ Jamaica.—*E. sinuatum*, Lam. ♄ St. Domingo.—*E. punctatum*, Lam. ♄ W. Indies.—*E. ternifolium*, Ell. Carolina.—*E. canescens*, Vahl. ♄ St. Thomas.—*E. burmannicum*, DC. ♄ Segaen.—*E. Reevesii*, Wall. ♃. China.—*E. nodiflorum*, Wall. ♃. Khassya Mountains.—*Mikania hastata*, Willd. ♄ ⌒ Jamaica.—*M. clematidea*, Wall. ♄ Nepal.—*M. amara*, Willd. ♄ ⌒ Guiana. W. Indies.—*M. volubilis*, Willd. ♄ ⌒ Penang. Singapore.—*Adenostyles glabra*, DC. ♃. S. Europe.—*Nardosmia fragrans*. Reïch. (Tussilago fragrans, B. M. 34, t. 1388.) ♃. S. Europe.—*Petasites vulgaris*, Desf. (Tussilago Petasites, E. B. 6, t. 431.) ♃ Europe.

c. Asteriëæ. Asteroïdeæ, Less.
(*DC. pr.* 5, *p.* 211.)

Felicia, DC. (*pr.* 5, *p.* 218.)

1. *tenella*, Nees. (*DC. o. c. p.* 219.—F. fragilis, Cass.—Aster tenellus, *L.*;—*B. M.* 1, *t.* 33.—A. dentatus and tenellus, *Thunb.*—Kaulfussia ciliata, *Spreng. fil.*—Cineraria tenella, *Lk.*) ⊙ C. G. H. Fl. small, white, C. S.

Astèr, L. (*DC. pr.* 5, *p.* 226.)

1. *spectabilis*, Ait. (*DC. o. c. p.* 230;—*B. Reg.* 18, *t.* 1527.—A. elegans, *Willd.*) 4. N. America. Fl. largish, blue-purple, C. S.
2. *Amellus*, L. (*DC. pr.* 5, *p.* 231.)
   β. *latifolius*, DC. (A. Amellus, *B. Reg.* 4, *t.* 340.) 4. Middle and S. Europe. Fl. purple, C. S.
3. *fragilis*, Willd. (*DC. pr.* 5, *p.* 241;—*B. Reg.* 18, *t.* 1537.) 4. N. America. Fl. middle-sized, white, C. S.
4. *dumosus*, L. (*DC. pr.* 5, *p.* 241;—*Roxb. H. B. p.* 61.—A. foliolosus, *Nees.*) 4. N. America, from New England to Carolina. Fl. white, May; fr. August.
5. *cyaneus*, Hoffm. (*DC. pr.* 5, *p.* 246;—*B. Reg.* 18, *t.* 1495.) 4. N. America. Fl. largish, blue, C. S.

Callistephus, Cass. (*DC. pr.* 5, *p.* 274.)

1. *chinensis*, Nees. (*DC. l. c.*;—*J. Grah. Cat. B. pl. p.* 98.—C, hortensis, *Cass.*—Aster chinensis, *L.*;—*Roxb. fl. ind.* 3, *p.* 433.—Callistemma hortense, *Cass.*—Diplopappus chinensis, *Less.*) ⊙ Japan. China. Nepal. Fl. of various colours, C. S.

Diplopappus, DC. (*pr.* 5, *p.* 275.)

1. *trinervius*, (D. asperrimus, *DC. o. c. p.* 277.—Aster trinervius, *Roxb. fl. ind.* 3, *p.* 433;—*H. B. p.* 61.) 4. Nepal. In H. C. G. fl. C. S. (*Roxb.*)

Stenactis, Nees. (*DC. pr.* 5, *p.* 298.)

1. *annua*, Nees. *DC. l. c.*—S. dubia, *Cass.*—Aster annuus, *L.*;—*Roxb. H. B. p.* 61.—Erigeron heterophyllus, *Willd.*,—E. annuus, Pers.—Cineraria corymbosa, *Mönch.*—Pulicaria annua, *Gärtn.*—Phalacroloma acutifolium, *Cass.*—Diplopappus dubius, *Cass.*) ⊙ N. America. Domesticated in Europe. Fl. white, Feb.

Bellis, L. (*DC. pr.* 5, *p.* 304.)

1. *perennis*, L. (*DC. l. c.*;—*Lam. ill.* 3, *t.* 677;—*E. B.* 6, *t.* 424.)—*Common Daisy*. 4. Europe. Fl. middle-sized, white, C. S.

Psiadia, Jacq. (*DC. pr.* 5, *p.* 318.)

1. *arguta*, (P. balsamica, *DC. o. c. p.* 319.—Baccharis arguta, *Pers. syn.* 2, *p.* 423.—Eupatorium flexuosum, *Roxb. fl. ind.* 3, *p.* 415, not Lam.—Elphegea latifolia, *Cass.*—Conyza balsamica, *Wall. Cat.*) ♄ Mauritius. Has been introduced into H. C. G. Fl.?

Microglossa, DC. (*pr.* 5, *p.* 320.)

1. *sessilifolia*, DC. (*l. c.*) ♄ ⌣ Madagascar. Fl. small, yellowish, C. S.

CHRYSOPSIS, Nutt. (*DC. pr.* 5, *p.* 326.)

1. *mariana*, Ell. (*DC. o. c. p.* 327.—Inula mariana, *L.*;—I. glandulosa, *Lam.*—Diplogon marianus, *Rafin.*) 4. Carolina. Georgia. Fl. yellow, C. S.

SOLIDAGO, L. (*DC. pr.* 5, *p.* 330.)

1. *canadensis*, L. (*DC. l. c.*) 4. N. America, from Canada to Pennsylvania, and on the Mountains of Carolina. Fl. small, bright yellow, C. S.

SPHÆRANTHUS, Vaill. (*DC. pr.* 5, *p.* 369.)

1. *hirtus*, Willd.? (*DC. l. c.*—S. indicus, *Roxb. fl. ind.* 3, *p.* 446, not L.;—*Wight. herb.*) ছাগল নদি *Chhagul-nudi.* ⊙ Peninsula of India. Bengal, (Serampore.) Fl. small, purplish, C. S.; fr. March. Whole plant inodorous.
2. *mollis*, Roxb. (*fl. ind.* 3, *p.* 446;—*DC. pr.* 5, *p.* 369;—*J. Grah. Cat. B. pl. p.* 96. excl. syn.—S. hirtus, *Burm.*—*Rheed.* 10, *t.* 43.) মুন্দী *Mundee.* ⊙ Peninsula of India. Bengal. (Serampore.) Hindoosthan. Kemaon. Fl. small, purplish, C. S.; fr. March. Whole plant very fragrant.

DICROCEPHALA, *DC.* (*pr.* 5, *p.* 371.)

1. *latifolia*, DC. (*o. c. p.* 372.—D. erecta, *L'Herit.*—Cotula latifolia, *Pers.*—C. bicolor, *Roth.*—C. sinapifolia, *Roxb. fl. ind.* 3, *p.* 437.—Grangea latifolia, *Lam.*—Ethulia glomerata, *Spreng. MSS.*—Hippia bicolor, *Sm.*—Spilanthus atriplicifolius, *L.*—Sphæranthus africanus, *Burm. ind. t.* 60, *f.* 2; not L.) ⊙ Madagascar. Java. Nepal. Fl. small, yellow white. In H. C. G. fl. H. S. (*Roxb.*)

GRANGEA, Adans. (*DC. pr.* 5, *p.* 372.)

1. *maderaspatana*, Poir. (*DC. o. c. p.* 373.—G. Adansonii, *Cass.*—Artemisia maderaspatana, *L.*—*Roxb. fl. ind.* 3, *p.* 422;—*J. Grah. Cat. B. pl. p.* 102.—Cotula maderaspatana, *Willd.*—*Rheed.* 10, *t.* 49.) নামতি *Namuti.* ⊙ Java. Peninsula of India. Bengal, (Serampore.) Fl. small, yellow, C. S.; fr. March.

CONYZA, L. (*DC. pr.* 5, *p.* 377.)

1. *angustifolia*, Roxb. (*fl. ind.* 3, *p.* 429;—*DC. pr.* 5, *p.* 83, not Lam.) ⊙ Native place unknown, but probably the Andamans. (*Roxb.*) Fl. small, pale yellow, C. S.; fr. March.
2. *pinnatifida*, Buch. (*Roxb. H. B. p.* 61;—*fl. ind.* 3, *p.* 430;—not Less, nor DC. pr. 5, p. 384, under C. absinthifolia.) ♄ Nepal. Fl. yellow, small, C. S.; fr. H. S.

? 3. *repanda*, Roxb. (*fl. ind.* 3, *p.* 431.) ⊙ Pegu. Fl. small, yellow. In H. C. G. fl. and fr. from Dec. till May. (*Roxb.*)

? 4. *lanceolaria*, Roxb. (*fl. ind.* 3, *p.* 432.) 4. Silhet. In H. C. G. fl. Feb. and March; fr. May. It is an article of the Materia Medica of Silhet. (*Roxb.*)

? 5. *diffusa*, Roxb. (*fl. ind.* 3, *p.* 429; not Poir.) ⊙ Bengal. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

? 6. *stricta*, Roxb. (*H. B. p.* 61.—*Willd.* ?) ⊙ Bengal. In H. C. G. fl. C. S.; fr. Feb. and March. (*Roxb.*)

BLUMEA, DC. (*pr.* 5, *p.* 432.)

1. *pubiflora*, DC. (*pr.* 5, *p.* 434;—*J. Grah. Cat. B. pl. p.* 97.—Erigeron asteroides, *Roxb. fl. ind.* 3, *p.* 432.) ⊙ Madras. The Concans. Fl. large, yellow, C. S; fr. March.
2. *bifoliata*, DC. (*l. c.*—Conyza bifoliata, *L.*;—*Roxb. fl. ind.* 3, *p.* 430; not Wall.) ⊙ Peninsula of India. Bengal, (Serampore.) Fl. small, yellow, C. S.; fr. Feb. and March.
3. *lacera*, DC. (*pr.* 5, *p.* 436;—*J. Grah. Cat. B. pl. p.* 97.—Conyza lacera, *Burm. ind. t.* 59, *f.* 1;—*Roxb. fl. ind.* 3, *p.* 428.) বড় কোকসিম *Buro-koksima.* ⊙ Peninsula of India. Bengal, (Serampore.) Silhet. China. Java. Fl. small, yellowish, C. S.; fr. Feb. and March. The whole plant is strongly aromatic, somewhat smelling of turpentine, and is often used in cases of dyspepsia by the natives.
4. *laciniata*, DC. (*pr.* 5, *p.* 436.—Conyza laciniata, *Roxb. fl. ind.* 3, *p.* 427.) ⊙ Bengal, (Serampore.) Fl. small, yellow, C. S.; fr. Feb. and March.
5. *balsamifera*, DC. (*pr.* 5, *p.* 447.;—*J. Grah. Cat. B. pl. p.* 97.—Conyza balsamifera, *L.*;—*Roxb. fl. ind.* 3, *p.* 427.—Pluchea balsamifera, *Less.*—Baccharis Salvia, *L.*—Conyza odorata, *Rumph.* 6, *t.* 24, *f.* 1;—not L.) ♄ Luzon. Cochin China. Java. Moluccas. Assam. The Concans. Fl. small, yellow, Feb. and March; fr. H. S. The whole plant when bruised smells of camphor. (*Roxb.*)
6. *alata*, DC. (*pr.* 5, *p.* 448;—*J. Grah. Cat. B. pl. p.* 97.—Conyza alata, *Roxb. fl. ind.* 3, *p.* 430.—Erigeron alatus, *Don. pr. fl. nep. p.* 171.) ♄ Concans. Nepal. Fl. small, purple, H. S. (*Roxb.*)
7. *aurita*, DC. (*pr.* 5, *p.* 449;—*J. Grah. Cat. B. pl. p.* 97.—Conyza aurita, *Roxb. fl. ind.* 3, *p.* 428;—*L.* ?) ⊙ Both Peninsulas of India. Bengal, (Serampore.) Fl. small, yellow, C. S.; fr. Feb. and March. Smells strongly of turpentine, (*Roxb.*)

PLUCHEA, Cass. (*DC. pr.* 5, *p.* 449.)

1. *indica*, Less. (*DC. pr.* 5, *p.* 451;—*Wight. ill.* 2, *t.* 131.—Baccharis indica, *L.*—Conyza indica, *Bl.*—C. corymbosa, *Roxb. fl. ind.* 3, *p.* 426.) ♄ Luzon. Java. Timor. Penang. Chittagong. Soonderbuns. Fl. small, pale rose-coloured. (in Wight. ill. bright yellow) C. S.; fr. H. S.

MONARRHENUS, Cass. (*DC. pr.* 5, *p.* 457.)

1. *salicifolius*, Cass. (*DC. l. c.*—Conyza salicifolia, *α. Lam.*;—*Roxb. fl. ind.* 3, *p.* 431.) ♄ Mauritius. Bourbon. Has been introduced into H. C. G.?

INULA, L. (*DC. pr.* 5, *p.* 463.)

1. *Helenium*, L. (*DC. l. c.*—*E. B.* 22, *t.* 1546;—*Gärtn. fr.* 2, *p.* 449, *t.* 170, *f.* 2.—Aster Helenium, *Scop.*—A. officinalis, *All.*—Corvisartia Helenium, *Merat. and Cass.*) *Elecampane.* 4. England. Belgium.

France. Germany. Denmark. Fl. large, bright yellow, C. S.; but rarely.

VICOA, Cass. (*DC. pr.* 5, *p.* 474.)

1. *indica*, DC. (*l. c.*)

β *subintegra*, DC. (Inula indica, *L.*—Doronicum calcaratum, *Roxb. fl. ind.* 3, *p.* 434.—Aster indicus, *Willd.*; not L.—Vicoa indica *J. Grah. Cat. B. pl. p.* 97.) ⊙ Peninsula of India, growing under the shade of trees, in dry, uncultivated ground. Fl. largish, yellow. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

CÆSULIA, Roxb. (*DC. pr.* 5, *p.* 482.)

1. *axillaris*, Roxb. (*Corom.* 1, *t.* 93; *fl. ind.* 3, *p.* 447;—*DC. l. c.*;—*B. Repos. t.* 431.—*J. Grah. Cat. B. pl. p.* 96.—Meyera orientalis, *D. Don. pr. fl. nep. p.* 180.—Melananthera orientalis, *Spreng.*) ⊙ Rice fields and other moist places of the Peninsula of India. Fl. light purple, R. and C. S.; fr. C. S.

BUPHTHALMUM, L. (*DC. pr.* 5, *p.* 483.)

1. *salicifolium*, DC. (*l. c.*;—*Jacq. austr. t.* 370.—B. salicifolium and grandiflorum, *L.*) ♃. Europe. Fl. large, yellow, C. S.

TELEKIA, Baum. (*DC. pr.* 5, *p.* 485.)

1. *cordifolia*, DC. (*l. c.*—*B. M.* 63, *t.* 3466.—Telekia speciosa, *Baumg.*—Molpadia suaveolens, *Cass.*—Inula caucasica, *Pers.*—Buphthalmum cordifolium, *Kit.*; *pl. hung. rar.* 2, *p.* 117, *t.* 113.—B. speciosum, *Schreb.*) ♃. Hungary. Tauria. Persia. Fl. large, yellow, C. S.

ECLIPTA, L. (*DC. pr.* 5, *p.* 489.)

1. *erecta*, L.? (*Willd.*—*DC. o. c. p.* 490.—E. prostrata, *Roxb. fl. ind.* 3, *p.* 438;—*J. Grah. Cat. B. pl. p.* 99.—E. adpressa, *Mönch.*—Verbesina alba, *L.*—Cotula alba, *L.*—Micrelium asteroïdes, *Forsk.*—*Rumph.* 6, *t.* 18, *f.* 2;—*Rheed.* 10, *t.* 41.) কেশুরি *Keshoori*. ⊙ N. and S. America. C. G. H. Egypt. Senegal. India. China. Moluccas. Java. Mauritius, &c. Fl. small, white, and fr. the whole year.

BLAINVILLEA, Cass. (*DC. pr.* 5, *p.* 492.)

1. *latifolia*, DC. (*l. c.*—Eclipta latifolia, *L.*—Verbesinia Lavenia, *Roxb. fl. ind.* 3, *p.* 442; excl. syn.) ⊙ Dindygul. Malabar. Monghir. Fl. small, white. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*) The whole plant has a faint, pleasant, aromatic smell. (*Roxb.*)

DAHLIA, Cav. (*DC. pr.* 5, *p.* 494.)

1. *variabilis*, Desf. (*DC. l. c.*—*J. Grah. Cat. B. pl. p.* 100.—D. pinnata and rosea, Cav.—D. sambucifolia, *Salisb.*;—*Roxb. H. B. p.* 62.—D. purpurea, *Poir.*—D. superflua, *Ait.*;—*B. M.* 44, *t.* 1885.—Georgina variabilis, *Willd.*—G. superflua, *DC.*—Coreopsis Georgina nuda, *Cass.*) ♃. Mexico. Fl. large, deep rose-coloured, single, more or less double, purple-red, white or yellow, C. S.; fr. H. S.

2. *coccinea*, Cav. (*DC. pr.* 5, *p.* 494;—*B. M.* 20, *t.* 762.—D. fulgens, *Hortul.*—D. crocata, *Lag.*—D. bidentifolia, *Salisb.*—D. crocea, *Poir.*—D. frustranea, *Ait.*—Georgina variabilis, β. *Kth.*—G. crocata,

Sweet.—G. coccinea, *Willd.*—G. frustranea, *DC.*—Coreopsis Georgina pruinosa, *Cass.*) ♃. Mexico. Fl. large, scarlet, deep orange, or yellow, but not purple or white, C. S.; fr. H. S.

SIEGESBECKIA, L. (*DC. pr. 5, p. 495.*)

1. *orientalis*, L. (*DC. l. c.;—Roxb. fl. ind. 3, p. 439;—J. Grah. Cat. B. pl. p.* 100.—S. brachiata, *Roxb. l. c.*) ⊙ China. Circars. Deccan. Fl. small, yellow, R. and C. S.; fr. C. S.

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* *Aster Novæ Angliæ*, Ait. ♃. N. America.—*A. carolinianus*, Walth. ♃. Carolina, Georgia.—*A. grandiflorus*, L.; B. Reg. 4, t. 273. ♃. N. America.—*A. longifolius*, Lam. ♃. N. America.—*A. coridifolius*, Michx.; B. Reg. 18, t. 1487. ♃. Carolina.—*Tripolium vulgare*, Nees. (Aster Tripolium, L.; E. B. 2, t. 87.) ♃. Europe.—*Galatella punctata*, DC. ♃. S. Europe.—*Podocoma hieracifolia*, Cass. ♃. Buenos Ayres.—*Sericocarpus solidagineus*, Nees. ♃. N. America.—*Machæranthera tanacetifolia*, Nees. ♃. Mexico.—*Heleastrum paludosum*, DC. ♃. S. Carolina.—*Biotia corymbosa*, DC.; B. Reg. 18, t. 1532. ♃. N. America.—*Leptocoma racemosa*, Less. and Nees. ♃. Nepal.—*Fullartonia kamaonensis*, DC. ♃. Kemaon.—*Polyactidium delphinifolium*, DC. ♂. Mexico.—*Erigeron glaucus*, Ker.; B. R. 1, t. 10, ♃. Buenos Ayres.—*E. bellidifolius*, Mühl. B. M. 50, t. 2402. ♃. Canada, Carolina.—*E. canadensis*, L.; E. B. 29, t. 3019. ♃. Europe. Canada. Mexico. W. Indies.—*Bellis sylvestris*, Cyr. B. M. 51, t. 2511. ♃. S. Europe.—*Xanthocoma humilis*, H. B. and Kth. ♃. Mexico.—*Gymnosperma glutinosum*, Less. (Selloa glutinosa, Spreng.; B. Reg. 6, t. 462.) ♄ Brazil,—*Grindelia glutinosa*, Dun.; B. Reg. 3, t. 187. ♄ Mexico.—*G. inuloïdes*, Willd.; B. Reg. 3, t. 248. ♄ Mexico.—*G. arguta*, Schrad. (G. angustifolia, H. B. and Kth.; B. Reg. 10, t. 781.) ♃. Mexico.—*Psiadia glutinosa*, Jacq. ♄ Mauritius.—*Microglossa volubilis*, DC. ♄ ⌒ Rumph. 5, t. 104, f. 1, Penang.—*Neja gracilis*, D. Don.; B. Cab. t. 1814. ♄ Mexico.—*Solidago procera*, Ait. ♃. N. America.—*S. Virgaurea*, L.; E. B. 5, t. 301. ♃. Europe.—*Amphirhapis heterotricha*, DC. ♄ Khassya Mountains.—*Commidendrum gummiferum*, DC. ♄ St. Helena.—*Linosyris vulgaris*, Cass. (Chrysocoma Linosyris, L.; E. B. 35, t. 2505.) ♃. S. Europe. England.—*Sarcanthemum Coronopus*, Cass. ♄ Mauritius. Bourbon.—*Blepharispermum subsessile*, DC. ♄ Madras.—*Athroisma laciniatum*, DC. ♄ Martaban, near Trogla.—*Berthelotia lanceolata, DC.* β. *indica*, ♄ Cawnpore.—*Baccharis Vahlii*, DC. ♄ St. Cruz, St. Domingo.—*B. articulata*, Pers. ♄ Brazil.—*Pluchea odorata*, Cass. ♃. Mexico.—*Monarrhenus pinifolius*, Cass. ♄ Bourbon.—*Cylindrocline Commersonii*, Cass. ♄ Mauritius.—*Inula eupatorioïdes*, DC. ♄ Khassya Mountains.—*Pulicaria dysenterica*, Gärtn. (Inula dysenterica, L.; E. B. 16, t. 1115.) ♃. Europe.—*Borrichia frutescens*, DC. ♄ Jamaica.—*Salmea scandens*, DC. (Bidens scandens, L.; B. M. 46, t. 2062.) ♄ ◡

Jamaica.—*Siegesbeckia jorullensis*, H. B. and Kth.; B. Reg. 13, t. 1061. ⊙ Mexico.

d. Senecieæ. Senecionidæ, Less.

(*DC. pr.* 5, *p.* 497.)

Xanthium, Tournef. (*DC. pr.* 5, *p.* 522.)

1. *orientale*, L. (excl. syn.—X. indicum, *Kön. MSS.*;—*Roxb. fl. ind.* 3, *p.* 601;—*DC. o. c. p.* 523;—*J. Grah. Cat. B. pl. p.* 101.) বন ওকড়া *Bun-Okra.* ⊙ Egypt. Most parts of India, (Serampore.) Fl. small, white, Feb. and March; fr. H. S.

Ambrosia, Tourn. (*DC. pr.* 5, *p.* 525.)

1. *abrotanifolia*, Wall. (*Cat.*—*DC. l. c.*) ♄ Native place unknown. According to DC. cultivated in H. C. G. Perhaps a native of Brazil.
2. *elatior*, L. (*DC. pr.* 5, *p.* 526;—*Roxb. H. B. p.* 67.) ⊙ N. America, from Canada to Carolina. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
3. *trifida*, L. (*DC. pr.* 5, *p.* 527;—*Roxb. H. B. p.* 67.) ⊙ N. America, from Canada to Georgia. Flowers white. In H. C. G. fl. R. S; fr. C. S. (*Roxb.*)

Parthenium, L. (*DC. pr.* 5, *p.* 531.)

1. *Hysterophorus*, L. (*DC. o. c. p.* 532;—*B. M.* 49, *t.* 2275;—*Roxb. H. B. p.* 62.—Argyrochæta bipinnatifida, *Cav.*—Villanova bipinnatifida, *Ort.*) ⊙ Mexico. Cuba. Trinidad. Jamaica. St. Thomas. Martinique. Fl. small, white, inodorous, and fr. R. S.

Zinnia, L. (*DC. pr.* 5, *p.* 534.)

1. *tenuiflora*, Jacq. (*icon. rar.* 3, *t.* 590.—*DC. o. c. p.* 535;—*B. M.* 16, *t.* 555;—*J. Grah. Cat. B. pl. p.* 99. (misprinted Z. terniflora.)—Z. revoluta, *Cav. ic.* 3, *t.* 251.) ⊙ Mexico. Fl. middle-sized, scarlet, C. S.; fr. H. S.
2. *multiflora*, L. (*DC. l. c.*;—*B. M.* 5, *t.* 149;—*Roxb. H. B. p.* 61.) ⊙ Mexico. Louisiana. Brazil. Fl. largish, scarlet, March; fr. April and May.
3. *pauciflora*, L. (*DC. l. c.*;—*Lam. ill. t.* 685.—Z. lutea, *Gärtn. fr.* 2, *p.* 459, *t.* 172, *f.* 3.—Rudbeckia foliis oppositis, *Zinn. h. Gott. t.* 1.—Chrysogonum peruvianum, *L. sp. ed.* 1, *p.* 920. excl. syn.—Bidens *Mill. dict. t.* 64.—Lejica, *Hill. exot.* 29.—Crassina, *Scop. diss.*) ⊙ Peru. Fl. middle-sized, yellowish, C. S.; fr. March.
4. *hybrida*, Sims. (*B. M.* 47, *t.* 2123;—*DC. pr.* 5, *p.* 536.—Z. grandiflora, *Hortul.*) ⊙ S. America. Fl. large, crimson, C. S.; fr. H. S.
5. *elegans*, Jacq. (*Coll.* 3, *p.* 152;—*DC. l. c.*) ⊙ Mexico. Fl. large, C. S.; fr. H. S.
   a. violacea, DC. (Z. violacea, *Cav.*; *ic.* 1, *t.* 81;—*B. Repos.* 1, *t.* 55.—Z. elegans, *Jacq. ic. rar.* 3, *t.* 589;—*B. M.* 15, *t.* 527.) Fl. violet.
   β. coccinea, DC. (Z. violacea, β coccinea, *Lindl. B. Reg.* 15, *t.* 1294.) Fl. bright scarlet.

WEDELIA, Jacq. (*DC. pr.* 5, *p.* 538.)

1. *calendulacea*, Less. (*DC. o. c. p.* 539.—Verbesina calendulacea, *L.*;—*Lam. ill. t.* 686, *f.* 1;—*Roxb. fl. ind.* 3, *p.* 440;—*J. Grah. Cat. B. pl. p.* 100.—V. benghalensis, *Rich.*; *Pers.*—Jägeria calendulacea, *Spreng.*;—*Rheed.* 10, *t.* 42;—*Burm. zeyl. t.* 22, *f.* 1.) বাঙ্গড়া *Bangra.* কেশ রাজ *Kesho-raj.* ♃. Ceylon. Coromandel. The Concans. Bengal, (Serampore.) &c. Fl. largish, bright yellow, R. and C. S.; fr. H. S. The plant has a slight terebinthinaceous taste. (*Roxb.*)

WOLLASTONIA, DC. (*pr.* 5, *p.* 546.)

1. *biflora*, DC. (*l. c.*—Verbesina biflora, *L.*;—*Roxb. fl. ind.* 3, *p.* 440;—*J. Grah. Cat. B. pl.* excl. syn.—V. urticifolia, *Wight.*—Acmella biflora, *Spreng.*;—*Rheed.* 10, *t.* 40.) ⊙ Coromandel. Very common on the Ghauts, covers the roofs of houses at Kandalla, Martaban, &c. Fl. largish, yellow, C. S.; fr. H. S.
2. *scabriuscula*, DC. (*o. c. p.* 547.—Eclipta scabriuscula, *Wall. Cat.*—Melananthera glandulosa, *Wall. herb.*—Megera capitata, *Spreng.* excl. syn.—Verbesina dichotoma, *Heyn.*—V. biflora, *Bl.*; not L.) ♃. Timor. Penang. Singapore. Rangoon. Silhet. Fl. yellow. In H. C. G.

HELIOPSIS, Pers. (*DC. pr.* 5, *p.* 550.)

1. *lævis*, Pers. (*DC. l. c.*;—*B. M.* 61, *t.* 3372.—Helianthus lævis, *L. fil.*—Buphthalmum helianthoïdes, *L. hort. ups*;—*L'Herit. stirp. p.* 93, *t.* 45.—Silphium solidaginoïdes, *L. sp. p.* 1302?—Rudbeckia oppositifolia, *L. sp.* 1280.) ♃. N. America, from Pennsylvania to Carolina, on shady, rocky banks of rivers. Fl. large, bright yellow, R. S.; fr. C. S.

GUIZOTIA, Cass. (*DC. pr.* 5, *p.* 551.)

1. *abyssinica*, Cass. (G. oleïfera, *DC. l. c.*;—*Wight. ill.* 2, *t.* 132.—Polymnia abyssinica, *L. fil. suppl. p.* 383.—P. frondosa, *Bruce.*—Verbesina sativa, *Roxb. fl. ind.* 3, *p.* 441;—*B. M.* 26, *t.* 1017;—*J. Grah. Cat. B. pl. p.* 100.—Werinnua, *Heyn.*—Parthenium luteum, *Spreng.*—Heliopsis platyglossa, *Cass.*—Tetragonotheca abyssinica, *Ledeb.*.—Jägera abyssinica, *Spreng.*—Helianthus oleifer, *Wall. Cat.*—Bidens? Ramtilla, *Wall. Cat.*—Ramtilla oleifera, *DC.*—Buphthalmum Ramtilla, *Buch.*—Anthemis mysorensis, *Hb. Madr.*) রাম তিল *Ram-til.* ⊙ Abyssinia. Mysore. Deccan, where it is commonly cultivated for the sake of the oil it affords. Lower Bengal. Fl. large, bright-yellow, C. S.; fr. Feb. and March.

ECHINACEA, Mönch.) *DC. pr.* 5, *p.* 554.)

1. *purpurea*, Mönch. (*DC. l. c.*—Rudbeckia purpurea, *L.*;—*B. M.* 1, *t.* 2;—*Roxb. H. B. p.* 62.) ♃. Mountains of N. America, from Virginia to Florida. Fl. large, purple. In H. C. G. fl. C. S.; fr. 0. (*Roxb.*)

RUDBECKIA, L. (*DC. pr.* 5, *p.* 555.)

1. *digitata*, Mill. (*DC. l. c.*; not Willd.—R. laciniata β. angustifolia, *Pers.*) ♃. Mountainous parts of Virginia and Carolina. Fl large, yellow, with a brownish disk, C. S; fr. 0.

2. *triloba*, L. (*DC. l. c.*;—*B. Reg.* 7, *t.* 525;—*Roxb. H. B. p.* 62.—R. triloba and aristata, *Pursh.*;—*Nutt.*—Centrocarpha aristata, *Don.*?) ♃. Mountainous parts of Virginia and Carolina. Fl large, yellow, with a brownish disk, C. S.; fr. H. S.
3. *hirta*, L. (*DC. pr.* 5, *p.* 556;—*Swt. brit. fl. gard.* 1, *t.* 82;—*Roxb. H. B. p.* 62.) ♂. Mountainous places of N. America, from Virginia to Florida. Fl. large, yellow, with a brownish disk. In H. C. G. fl. C. S.; fr. 0. (*Roxb.*)
4. *spathulata*, Michx. (*DC. o. c. p.* 557.) ♃. Mountainous places of Carolina and Florida. Fl. large, yellow, with a brownish disk. R. and C. S; fr. March, but rarely.

Chrysostemma, Less. (*DC. pr.* 5, *p.* 567.)

1. *Tripteris*, Less. (*DC. o. c. p.* 568;—*B. M.* 64, *t.* 3583.—Coreopsis Tripteris, *L.*;—*Roxb. H. B. p.* 62,—Anacis Tripteris, *Schrank.*) ♃. Mountains of N. America, from Virginia to Carolina and Georgia. Fl. large, yellow, with a purple disk. C. S.; fr. 0.

Calliopsis, Reichenb. (*DC. pr.* 5, *p.* 568.)

1. *tinctoria*, DC. (*l. c.*;—*J. Grah. Cat. B. pl. p.* 101.—C. bicolor, *Reichenb.*—Coreopsis tinctoria, *Nutt.*;—*B. M.* 51, *t.* 2512;—*B. Reg.* 10, *t.* 846.—Diplosastera tinctoria, *Tausch.*) ⊙ Arkansas. Fl. large, gold-coloured, with a brown base, Feb. and March; fr. C. S.
2. *Atkinsoniana*, Hook. (*DC. l. c.*—Coreopsis Atkinsoniana, *Dougl.*;—*B. Reg.* 16, *t.* 1376.) ♃. Banks of the Colombian river, in N. America. Fl. like those of *No.* 1, C. S.; fr. 0.

Helianthus, L. (*DC. pr.* 5, *p.* 585.) *Sunflower.*

1. *annuus*, L. (*DC. l. c.*—*Roxb. fl. ind.* 3, *p.* 443;—*J. Grah. Cat. B. pl. p.* 100.) শুড়িয়া মুকুতি *Shooriya-mookti.* ⊙ Peru. Fl. very large, yellow, and fr. nearly the whole year.
2. *ovatus*, Lehm. (*DC. pr.* 5, *p.* 586.) ⊙ Mexico. Fl. very large, orange-coloured, tinged with brownish, Feb. and March; fr. April and May.
3. *multiflorus*, L. (*DC. o. c. p.* 590;—*B. M.* 7, *t.* 227;—*Roxb. H. B. p.* 62.—H. polycephalus, *Cass.*) ♃. Dry, woody and mountainous places of N. America, from Canada and Pennsylvania to Carolina. Fl. large, bright-yellow. In H. C. G. fl. R. and C. S.; fr. C. S. (*Roxb.*)
4. *tuberosus*, L. (*DC. l. c.*;—*Roxb. H. B. p.* 62;—*J. Grah. Cat. B. pl. p.* 100;—*Jacq. vind. t.* 161.) *Jerusalem Artichoke.* ♃. Brazil. Commonly cultivated in gardens. Fl. large, yellow, R. and C. S.; fr. 0. Tubers of the root edible.

Bidens, L. (*DC. pr.* 5, *p.* 593.)

1. *trifida*, Buch. (*Roxb. fl. ind.* 3, *p.* 411.—B. tripartita, *Roxb. H. B. p.* 60; not L., nor DC. pr. 5, p. 596, under B. repens.) ⊙ Nepal. Fl. smallish, yellow, R. and C. S.; fr. H. S. (*Roxb.*)
2. *pilosa*, L. (*DC. pr.* 5, *p.* 597.—Ceratocephalus pilosus, *Rich. cat. h. med. p.* 91.—Kerneria dubia, *Cass.*—K. tetragona, *Mönch.*) ⊙ N.

America, from Pennsylvania to Carolina. Fl. smallish, yellow, Feb. and March ; fr. April.

4. *sundaica*, Bl. (B. bipinnata, *Roxb. H. B. p.* 60 ; *fl. ind.* 3, *p.* 411, not L.) ⊙ Rajmahl. Fl. smallish, yellow, R. and C. S. ; fr. H. S.

Cosmos, Cav. (*DC. pr.* 5, *p.* 606.)

1. *bipinnatus*, Cav. (*icon.* 1, *p.* 9, *t.* 14 ;—*DC. l. c.*—Cosmea bipinnata, *Willd.* ;—*B. M.* 37, *t.* 1535.—Georgia bipinnata, *Spreng.*—Coreopsis formosa, *Bonato.*) ⊙ Mexico. Fl. large, deep rose-coloured, R. and C. S. ; fr. H. S.

2. *sulphureus*, Cav. (*icon.* 1, *p.* 56, *t.* 79 ;—*J. Grah. Cat. B. pl. p.* 101. —Cosmea sulphurea, *Willd.*—Coreopsis artemisiæfolia, *Jacq. icon.* 3, *t.* 595.) ⊙ Mexico. Fl. large, sulphur-coloured, R. and C. S. ; fr. H. S.

Spilanthes, Jacq. (*DC. pr.* 5, *p.* 620.)

1. *acmella*, L. (*DC. o. c. p.* 625.—S. Acmella, *Roxb. fl. ind.* 3, *p.* 410 ;—*J. Grah. Cat. B. pl. p.* 99 ; not L.—Verbesinia Pseudoacmella, *L.*—Pyrethrum Acmella, *Medic.* ;—*Rumph.* 6, *t.* 65.) মার্হাট্টা তিগা *Marhata-tiga.* ⊙ Moluccas, Peninsula of India. Bengal, (Serampore.) Fl. small, yellow, R. and C. S. ; fr. C. S.

2. *oleracea*, Jacq. (*Hort. vind.* 2, *t.* 135 ;—*DC. pr.* 5, *p.* 624.—Pyrethrum Spilanthus, *Medic.*—Bidens acmelloïdes, *Berg.*—B. fervida, *Lam.*) ⊙ S. America. Fl. small, yellow, and fr. whole year.

Ximenesia, Cav. (*DC. pr.* 5, *p.* 627.)

1. *encelioïdes*, Cav. (*icon.* 2, *p.* 60, *t.* 178 ;—*DC. l. c.*—Pallasia serratifolia, *Sm. in Rees' cycl.*) ⊙ Mexico. Fl. large, bright-yellow, and fr. C. and H. S.

Heterospermum, Willd. (*DC. pr.* 5, *p.* 632.)

1. *pinnatum*, Willd. (*DC. o. c.*—Heterosperma pinnata, *Cav. ic.* 3, *t.* 267.) ⊙ Mexico. Fl. largish, yellow, Feb. and March ; fr. April and May.

Broteroa, DC. (*pr.* 5, *p.* 635.)

1. *trinervata*, DC. (*l. c. p.* 636.—Brotera trinervata, *Pers.*—B. Contrayerva, *Spreng.* excl. syn. Cav. and Feuill.—B. Sprengelii, *Cass.*—Nauemburgia trinervata, *Willd.*—Flaveria repanda, *Lag.*) ⊙ Caraccas. Mexico. Fl. small, yellow, C. S. ; fr. H. S.

Enhydra, DC. (*pr.* 5, *p.* 636.—Enydra, *Lour.*)

1. *Hingcha*, (E. Heloncha, *DC. o. c. p.* 637.—Hingcha repens, *Roxb. H. B. p.* 62.—Hingtcha, *Roxb. fl. ind.* 3, *p.* 637.—Meyera Heloncha, *Wall. Cat.*) হিঙ্গচা *Hingcha.* ♃. Bengal, (Serampore.) Silhet. Assam. Fl. small, white, H. and R. S. ; fr. R. S. *Leaves* eaten by the natives.

Tagetes, Tournef. (*DC. pr.* 5, *p.* 642.)

1. *patula*, L. (*DC. o. c. p.* 643 ;—*B. M.* 5, *t.* 150. ;—*Roxb. fl. ind.* 3, *p.* 434 ;—*J. Grah. Cat. B. pl. p.* 99.) ছোট গেঁদা *Chhoto-genda. French Marygold.* ⊙ Mexico. Domesticated in India. Fl. large, golden-brown, C. S. ; fr. H. S.

2. *erecta*, L. (*DC. l. c.*;—*Roxb. fl. ind.* 3, *p.* 335;—*J. Grah. Cat. B. pl. p.* 99.—T. major, *Gärtn. fr.* 2, *p.* 437, *t.* 172, *f.* 4.) বড় গেঁদা *Burogenda. African Marygold.* ⊙ Mexico. Domesticated in India. Fl. large, citron-coloured, C. S. Has a fetid smell.

TRIDAX, L. (*DC. pr.* 5, *p.* 679.)

1. *procumbens*, L. (*DC. l. c.*—Balbisia elongata, *Willd.*—B. pedunculata, *Hoffmans.*—B. divaricata, *Cass.*—Amellus pedunculatus, *Ort.*) ⊙ Mexico. Vera Cruz. St. Martha. Cuba. Entirely naturalized at the Mauritius, in Tropical India, &c. In Serampore and its neighbourhood it is one of the worst weeds, growing every where, especially on walls and houses, and being in flower and fruit the whole year. Fl. middle-sized, pale yellowish, with an orange disk.

MADIA, Mol. (*DC. pr.* 5, *p.* 691.)

1. *sativa*, Mol. (*DC. l. c.*—M. viscosa, *Cav. icon.* 3, *p.* 50, *t.* 298;—*B. M.* 52, *t.* 2574.—M. mellosa, *Jacq. hort. schönbr.* 3, *p.* 29, *t.* 302.) ⊙ Chili. Fl. middle-sized, deep yellow, Feb. and March.

ANTHEMIS, L. (*DC. pr.* 6, *p.* 4.)

1. *arvensis*, L. (*DC. o. c. p.* 6;—*E. B.* 9, *t.* 602.—Chamæmelum arvense, *All.*) *Corn Chamomile.* ⊙ Europe. Levant. Egypt. Fl. largish, white, with a yellow disk, Feb. and March.

MARUTA, Cass. (*DC. pr.* 6, *p.* 13.)

1. *Cotula*, DC. (*l. c.*—M. vulgaris, *Bluff and Fing.*—M. fœtida, *Cass.*—Anthemis Cotula, *L.*;—*E. B.* 25, *t.* 1772;—*Roxb. H. B. p.* 62.—A. fœtida, *Lam.*—A. cotuloïdes, *Raf.*—A. ramosa, *Lk.*—Chamæmelum Cotula, *All.*) ⊙ Europe. N. Africa. Madeira. Canaries. Crimea. Persia. Fl. middle-sized, white, with a yellow disk, March and April; fr. 0.

2. *fuscata*, DC. (*pr.* 6, *p.* 14.—Anthemis fuscata, *Brot.*—A. præcox, *Lk.*—A. fallax, *Willd.*) ⊙ S. Europe. N. Africa. Fl. like those of *No.* 1. March and April; fr. 0.

PTARMICA, Tournef. (*DC. pr.* 6, *p.* 19.)

1. *vulgaris*, Blackw. (*Herb. t.* 256;—*DC. o. c. p.* 23.—Achillea Ptarmica, *L.*;—*E. B.* 11, *t.* 757.) ♃. Europe. Siberia. Fl. smallish, white, C. S.; fr. 0.

ACHILLEA, L. (*DC. pr.* 6, *p.* 24.)

1. *Millefolium*, L. (*DC. l. c.*;—*E. B.* 11, *t.* 728.) *Milfoil.* ♃. Europe. N. Asia. Fl. middle-sized, white, R. and C. S.; fr. C. S.

2. *tanacetifolia*, All. (*DC. pr.* 6, *p.* 25.) ♃. France. Switzerland. Italy. Fl. middle-sized purple, C. S.; fr. 0.

3. *asplenifolia*, Vent. (*H. Cels. t.* 95;—*DC. pr.* 6, *p.* 26.—A. crispa, *Lam. herb.*—A. nova, *Herm. in herb. L'Herit.*—A. rosea, *Desf.*) ♃ Native place uncertain. Fl. smallish, rose-coloured, C. S.

4. *crithmifolia*, Wald. and Kit. (*DC. pr.* 6, *p.* 25.) ♃. Hungary. Has been introduced into H. C. G.

5. *nobilis*, L. (*DC. pr.* 6, *p.* 26.) ♃. S. Europe. Introduced in 1841.

LEUCANTHEMUM, Tournef. (*DC. pr.* 6, *p.* 45.)

1. *vulgare.* Lam. (*DC. o. c. p.* 46.—Chrysanthemum Leucanthemum, *L.*;—*E. B.* 9, *t.* 601;—*Roxb. H. B. p.* 62.—C. montanum, *Willd.*; not L.) ♃. Europe. Fl. very large, white, with a yellow disk, C. S.

MATRICARIA, L. (*DC. pr.* 6, *p.* 50.)

1. *suaveolens*, L. (*DC. o. c. p.* 51;—*Roxb. fl. ind.* 3, *p.* 437.—M. Chamomilla, *Wall. MSS.* not L.) ⊙ Hindoosthan. Persia. (*Roxb.*) Cashmere. (*Royle.*) Fl. smallish, white, with a yellow disk, Feb.; fr. H. S.

PYRETHRUM, Gärtn. (*DC. pr.* 6, *p.* 53.)

1. *maritimum*, Sm. (*DC. l. c.*;—*E. B.* 14, *t.* 979.—Matricaria maritima, *L.*—Chrysanthemum maritimum, *Pers.*) ♃. Sea-coasts of England, Gothland and N. W. France. Fl. middle-sized, white, with a yellow disk, C. S.; fr. H. S.
2. *Parthenium*, Sm. (*DC. pr.* 6, *p.* 58;—*E. B.* 18, *t.* 1231.—Matricaria Parthenium, *L.*—M. odorata, *Lam.*) ♃. Europe. Fl. smallish, white, with a yellow disk, C. S.; fr. H. S.
3. *Myconis*, Mönch. (*Suppl. p.* 287;—*Spreng.* excl. syn.;—*DC. pr.* 6, *p.* 61.—Chrysanthemum Myconis, *L.*;—*Jacq. obs.* 4, *p* 10, *t.* 94.—Coleostephus Myconis, *Cass.*) ⊙ S. Europe. N. Africa. Fl. large, deep-yellow, March; fr. April.
4. *indicum*, Cass. (not Roxb.;—*DC. pr.* 6, *p.* 62.—Chrysanthemum indicum, *L.*; *Sabine, trans. hort. soc.* 14, *p.* 144;—*B. Reg.* 15, *t.* 1287.—*Roxb. fl. ind.* 3, *p.* 436;—*J. Grah. Cat. B. pl. p.* 102; not B. M., nor Thunb. nor in J. Grah. as to the remarks.—C. tripartitum, *Swt. fl. gard. t.* 193.) চন্দ্র মুল্লিকা *Chundro-moollika.* গুল দাউদী *Gool-daoodee.* ♃. China. Japan. Dindygul. Taong-Dong. Common in gardens. Fl. middle-sized, or smallish, yellow, R. and C. S.; fr. C. S.
   β. *plenum*, (Chrysanthemum indicum, β. plenum, *B. Reg.* 18, *t.* 1502;—*Rheed.* 10, *t.* 44;—*Rumph.* 5, *t.* 91, *f.* 1.) Fl. yellow, double.
5. *sinense*, DC. (*pr.* 6, *p.* 62.—Chrysanthemum sinense, *Sabin. trans. hort. soc.* 4, *t.* 14.—Chrysanthemum indicum, *Thunb*;—*Lour*;—*J. Grah. Cat. B. pl. p.* 102, as to the remarks, and excl. all syn.—Anthemis grandiflora, *Ramat.*;—*DC. hort. monspel.*—A. artemisiœfolia, *Willd.*—A. stipulacea, *Mönch.*) ♃. Japan. Cultivated in China, India, Europe, and America. Fl. large, of various colours, (dark purple, purple-lilac, rose, white, yellow, orange, variegated,) in our gardens double, C. S.
   α. *purple.* (Chrysanthemum indicum, *B. M.* 10, *t.* 327, excl. syn.)
   β. *changeable-white.* (Chrysanthemum indicum, β. *B. M.* 46, *t.* 2042, excl. syn. Curt. Willd. 3, p. 2147. Rheed. and Rumph.)
   γ. *rose-coloured.* (Chrysanthemum sinense, *B. M.* 52, *t.* 2556.)
   δ. *golden-yellow.* (Chrysanthemum indicum, α. *B. Reg.* 1, *t.* 4.)
   ε. *quilled-white.* (Chrysanthemum indicum, δ. *B. Reg.* 1, *t.* 4.)

ζ. *superb-white.* (Chrysanthemum indicum, var. superbum, *B. Reg.* 6, *t.* 455.)

η. *quilled-pink.* (Chrysanthemum indicum, var. 14, *B. Reg.* 8, *t.* 616.)

CHRYSANTHEMUM, L. (*DC. pr.* 6, *p.* 63.)

1. *foeniculaceum*, DC. (*o. c. p.* 66.—Pyrethrum foeniculaceum, *Choisy.*) ♄ Canaries. Fl. smallish, white.

β. *bipinnatifidum*, DC. (Pyrethrum foeniculaceum, *B. Reg.* 4, *t.* 272.) Fl. C. and H. S.; fr. H. S.

2. *segetum*, L. (*DC. pr.* 6, *p.* 64;—*E. B.* 8, *t.* 540;—*Roxb. H. B. p.* 61.—Pyrethrum segetum, *Mönch.*) *Corn-Marygold.* ⊙ Fields of Sweden, Denmark, Belgium, France, England, and Germany. Fl. large, gold-coloured, C. S.

3. *Roxburghii*, Desf. (*DC. pr.* 6, *p.* 64.—C. senecioïdes, *Dun.*—Pyrethrum indicum, *Roxb. fl. ind.* 3, *p.* 436;—*B. M.* 37, *t.* 1521;—*J. Grah. Cat. B. pl. p.* 102.—Matricaria oleracea, *Buch. in Wall. Cat.*—Pinardia Roxburghii, *Less.*—Glebionis Roxburghii, *Cass.*) ⊙ Bombay. Bengal, (Serampore.) Fl. large, lively yellow, Feb. and March; fr. H. S. The flowers &c. impress a peculiar pricking sensation on the tongue when chewed. (*Nimmo.*)

4. *carinatum*, Schousb. (*DC. pr.* 6, *p.* 65.—C. tricolor, *Andr. B. Repos.* 2, *t.* 109;—*B. M.* 15, *t.* 508.—Ismelia versicolor, *Cass.*) ⊙ N. Africa, near Mogadore. Fl. large, yellow-white, with a purplish and dark purplish disk, March; fr. April.

DIMORPHOTHECA, Vaill. (*DC. pr.* 6, *p.* 70.)

1. *hybrida*, DC. (*l. c.*—D. incrassata, *Mönch.*—Calendula hybrida, *L.*—Meteorine crassipes, *Cass.*) ⊙ C. G. H. Fl. middle-sized, above whitish, underneath purplish, March; fr. 0.

LONAS, Adans. (*DC. pr.* 6, *p.* 84.)

1. *inodora*, Gärtn. (*fr.* 2, *p.* 396, *t.* 165, *f.* 5;—*DC. l. c.*—L. inodora and minima, *Cass.*—Athanasia annua, *L. sp.* 1182; excl. Triumf. syn;—*B. M.* 49, *t.* 2276.—Achillea inodora, *L. sp. ed.* 2, *p.* 1265.) ⊙ N. Africa. Sicily. Fl. small, dirty dark-yellowish, March; fr. 0.

ARTEMISIA, L. (*DC. pr.* 6, *p.* 93.) *Wormwood.*

1. *scoparia*, Waldst. and Kit. (*pl. rar. hung.* 1, *p.* 66, *t.* 65;—*DC. pr.* 6, *p.* 99.—A. elegans, *Roxb. fl. ind.* 3, *p.* 421.) ⊙ Siberia. China. Persia. Cashmere. Kamaon. Caucasus. Crimea. Smyrna. Armenia. Hungary. Lithuania. Fl. small, yellow, March; fr. H. S.

2. *parviflora*, Buch. (*Roxb. fl. ind.* 3, *p.* 420;—*DC. pr.* 6, *p.* 100.—A. glabrata, *Wall. Cat.* ?—*DC. l. c.*) ♃. Khassya Mountains. Nepal. Fl. minute, green, May. (*Roxb.*)

3. *paniculæformis*, DC. (*pr.* 6, *p.* 107.—A. paniculata, *Roxb. fl. ind.* 3, *p.* 418; not Lam.) ♄ Persia. (*Roxb. H. B.*) Fl. small, yellow, C. S.; fr. H. S. The smell of the plant is somewhat like that of Southernwood, but less powerful.

4. *Abrotanum*, L. (*DC. pr.* 6, *p.* 108;—*J. Grah. Cat. B. pl. p.* 102.) *Southernwood.* ♄ Hills of S. Europe. Fl. very small, greenish-white, C. S.; fr. 0.
5. *vulgaris*, L. (*DC. pr.* 6, *p.* 112;—*E. B.* 14, *t.* 978;—*Roxb. fl. ind.* 3, *p.* 420.—A. officinalis, *Gat. fl. mont. p.* 144.) নাগদানা *Nagdana. Magwort.* ♃. Europe. N. Africa. Levant. Siberia. Cultivated in gardens in India. Fl. minute, purplish, Feb. and March; fr. H. S.
6. *indica*, Willd. (*DC. pr.* 6, *p.* 114;—*Roxb. fl. ind.* 3, *p.* 419;—*J. Grah. Cat. B. pl. p.* 102, excl. syn. Rheed. Rumph. and Pluk.) দানা *Dana.* ♄ China. Japan. Nepal. Cultivated in India. Fl. very small, greenish, Feb. and March; fr. H. S. *Leaves* of a slightly aromatic odour, and of a bitterish taste. (*Roxb.*)
7. *grata*, Wall. (*Cat.*—*DC. pr.* 6, *p.* 114.—A. vulgaris, *Burm. fl. ind. p.* 177;—*Rheed.* 10, *t.* 45.) ♃. Peninsula of India. Fl. small, greenish-white, Feb.
8. *lactiflora*, Wall. (*Cat.*—*DC. pr.* 6, *p.* 115.) ♃. China. Fl. small, whitish, C. S.
9. *carvifolia*, Buch. (*Roxb. fl. ind.* 3, *p.* 422;—*DC. pr.* 6, *p.* 119.—A. riparia, *Buch. herb.*) ⊙ Khassya Mountains. Nepal. Fl. minute, greenish-yellow. In H. C. G. fl. March and April. (*Roxb.*)

Crossostephium, Less. (*DC. pr.* 6, *p.* 127.)

1. *artemisioïdes*, Less. (*DC. l. c.*—Artemisia chinensis, *Vahl.* not L.) ♄ Luçon, near Manilla. Canton. Fl. minute, sulphur-coloured, C. S.; fr. 0.

Tanacetum, L. (*DC. pr.* 6, *p.* 127.)

1. *vulgare*, L. (*DC. o. c. p.* 128;—*E. B.* 18, *t.* 1229;—*Roxb. H. B. p.* 61;—*Gärtn. fr.* 2, *p.* 395, *t.* 165, *f.* 7;—*Lam. ill. t.* 696, *f.* 1.—T. sibiricum, *Falk. topogr.* 2, *No.* 992.) *Common Tansy.* ♃. Europe. Tauria. Fl. minute, yellow, C. S.; fr. H. S. The whole plant is very bitter, and exhales a peculiar, strong scent. Its medicinal use is now obsolete.

Myriogyne, Less. (*DC. pr.* 6, *p.* 139.)

1. *minuta*, Less. (*DC. l. c.*—Cotula minuta, *Forst.*—C. minuta and cuneifolia, *Willd.*—Grangea minuta and cuneifolia, *Poir.*—G. decumbens, *Desf.*—Artemisia minima, *Thunb.*; not L.—Dicrocephala minuta, *L'Herit. MSS.*) ⊙ Japan. India. Luçon. New Holland. New Zealand. N. Caledonia. Madagascar. Fl. minute, yellow.

   β. *lanuginosa*, DC. (Artemisia sternutatoria, *Roxb. fl. ind.* 3, *p.* 423.—Cotula minima, *Bl.*—C. sternutatoria, *Wall. Cat.*) হাঁচুটী *Hachutee.* ⊙ Java. Bengal, (Serampore.) Fl. Feb. and March; fr. H. S. The minute seeds are used as a sternutatory by the natives. Roxb. says he often used them successfully himself.

Machlis, DC. (*pr.* 6, *p.* 140.)

1. *hemisphærica*, DC. (*l. c.* and in *Deless. ic. sel.* 4, t. 50.—Artemisia hemisphærica, *Roxb. fl. ind.* 3, *p.* 423.—Cotula hemisphærica, *Wall.*

Cat.—Ethulia nepalensis, *Spreng. MSS.*—Grangea mucronata, *Buch. herb.*) ⊙ Bengal, (Serampore.) &c. Fl. small, yellow, Feb. and March; fr. H. S.

HELICHRYSUM, Vaill. (*DC. pr.* 6, 169.)

1. *bracteatum*, Willd. (*DC. o. c. p.* 189.—H. chrysanthum, *Pers.*—Elichrysum lucidum, *Hänk.*—Xeranthemum bracteatum, *Vent.*) 4. Fl. heads large; florets bright-yellow, March; fr. 0. S. and E. New Holland.

GNAPHALIUM, L. (*DC. pr.* 6, *p.* 221.) *Everlasting.*

1. *indicum*, L. (*DC. pr.* 6, *p.* 231;—*Roxb. H. B. p.* 61;—*J. Grah. Cat. B. pl. p.* 97.—G. pluricaule, *Buch. herb.*—G. multicaule, *Willd.*;—*Roxb. fl. ind.* 3, *p.* 425; not Lam.—G. polycaulon, *Pers.*—G. pluricaule, *Poir.*—G. strictum, *Roxb. fl. ind.* 3, *p.* 424.) ⊙ Ceylon. Peninsula of India. Prome. Martaban. Bengal, (Serampore.) Fl. very small; florets yellow, C. S.; fr. Feb. and March.
2. *Roxburghianum*, (G. albo-luteum, *Roxb. fl. ind.* 3, *p.* 425. not G. luteo-album, L.) ⊙ Bhootan. Fl. minute, yellow, Feb. and March; fr. H. S. (*Roxb.*)

FILAGO, Tournef. (*DC. pr.* 6, *p.* 247.)

1. *prostrata*, DC. (*o. c. p.* 248.—Gnaphalium prostratum, *Roxb. herb.*—G. depressum, *Roxb. fl. ind.* 3, *p.* 425.—Evax indica, *Buch. in Wall. herb.*) ⊙ Negapatam. Patna. Fl. minute, yellow, Feb. and March; fr. H. S. (*Roxb.*)

CREMOCEPHALUM, Cass. (*DC. pr.* 6, *p.* 297.)

1. *cernuum*, Cass. (*DC. l. c.*—Senecio cernuus, *L. fil. suppl. p.* 370;—*Ait.*—S. rubens, *Jacq. h. vind.* 3, *p.* 50, *t.* 98.—S. uniflorus, *Retz.*—S. purpureus, *Will. fl. maur.* 51.—Crassocephalum cernuum, *Mönch.*) ⊙ Mauritius. Bourbon. Madagascar. Fl. small, purple, March.

GYNURA, Cass. (*DC. pr.* 6, *p.* 298.)

1. *sarmentosa*, DC. (*l. c.*—Cacalia sarmentosa, *Bl. bijdr. p.* 907.—C. reclinata, *Roxb. fl. ind.* 3, *p.* 412;—*Wall. Cat.*—C. cylindriflora, *Wall. Cat.*—*Rumph.* 5, *t.* 103, *f.* 2.?) 4. Java. Penang. Singapore. Fl. largish, orange, C. S.
2. *purpurascens*, DC. (*pr.* 6, *p.* 299.—Cacalia purpurascens, *Wall. Cat.*) 4. Nepal. Fl. yellow. In H. C. G. Fl.?
3. *bicolor*, DC. (*l. c.*—Cacalia bicolor, *Roxb. fl. ind.* 3, *p.* 412.—*Salisb. parad. t.* 25;—*B. Reg.* 2, *t.* 110.) 4. Moluccas. Fl. largish, deep orange, and fr. C. S.
4. *nepalensis*, DC. (*pr.* 6, *p.* 300.—Cacalia nepalensis, *Spreng. MSS.*——C. aurantiaca, *Wall. Cat.* not Bl.) 4. Nepal. Fl. largish, orange, C. S.

EMILIA, Cass. (*DC. pr.* 6, *p.* 301.)

1. *sonchifolia*, DC. (*o. c. p.* 302.—E. purpurea, *Cass.*—Cacalia sonchifolia, *L.*; not Forsk;—*Roxb. fl. ind.* 3, *p.* 413;—*J. Grah. Cat. B. pl. p.* 98.—C. sonchifolia, and glabra, *Wall. Cat.*—C. prenanthoïdes,

Sieb. excl. syn. Kth.—Senecio sonchifolia. *Mönch* —Crassocephalum sonchifolium, *Less.*—*Rheed.* 10, *t.* 68;—*Rumph.* 5, *t.* 103, *f.* 1.) শদি মদি *Shudi-mudi.* ⊙ China. Timor. Mauritius. Moluccas. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. small, bright purple, and fr. C. S.

2. *sagittata*, DC. (*pr.* 6, *p.* 302.—E. flammea, *Cass.*—Cacalia sagittata, *Vahl. symb.* 3, *p.* 91, excl. syn.—C. coccinea, *Curt. B. M.* 16, *t.* 564.) ⊙ Philippine Islands. Fl. smallish, deep orange, scarlet, and fr. C. S.

Senecio, L. (*DC. pr.* 6, *p.* 341.)

1. *vulgaris*, L. (*DC. l. c.*;—*E. B.* 11, *t.* 747;—*Roxb. H. B. p.* 61.) ⊙ Europe. N. Africa. N. and temperate Asia. Fl. smallish, yellow, Feb. and March.

Notonia, DC. (*pr.* 6, *p.* 441.)

1. *grandiflora*, DC. (*l. c.* and in *Deless. ic. sel.* 4, *t.* 61.—Cacalia grandiflora, *Wall. Cat.*) ♄ Travancore. Neelgherries. Fl. heads largish, white, C. S.
2. *crassissima*, DC. (*l. c.*—Cacalia crassissima, *Wall.*) ♄ Ava. Fl. heads largish, white, C. S.

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* *Pterolobium arboreum*, R. Br. ♄ St. Helena.—*Clibadium asperum*, DC. ♃. Cayenne.—*C. erosum*, DC. ♄ W. Indies.—*Chrysogonum Diotostephus*, DC. ♃. Carolina.—*Franseria artemisioides*, Willd. ♄ Peru.—*Philactis zinnioïdes*, Schrad. ♃. Mexico.—*Zinnia verticillata*, Andr. B. Repos. 3, t. 189. ⊙ Mexico.—*Wedelia radiosa*, Ker.; B. Reg. 8, t. 610. ♄ Brazil.—*W. carnosa*, Rich. ♃. W. Indies.—*Melanthera hastata*, Rich. ♃. Havannah.—*Heliopsis scabra*, Dun. (H. canescens, Don.; B. Reg. 7, t. 592.) ♃. N. America.—*H. buphthalmoïdes*, Dun. ♃. Peru.—*Ferdinanda augusta*, Lag. ♄ Mexico.—*Chrysophania fastigiata*, Kth. ♄ Mexico.—*Zaluzania triloba*, Pers. ♃. Mexico.—*Chiliophyllum globosum*, DC. ♃. Mexico.—*Echinacea serotina*, DC. ♃. S. Louisiana.—*E. heterophylla*, D. Don.; Swt. brid. fl. gard. ser. 2, t. 32. ♃. Mexico.—*Rudbeckia fulgida*, Ait.; B. M. 49, t. 1996. ♃ N. America.—*Obeliscaria pinnata*, Cass. (Rudbeckia pinnata, Vent.; B. M. 49, t. 2310.) ♃. Carolina. Georgia.—*Wulffia maculata*, DC. (Gymnoloma maculatum, Ker.; B. Reg. 8, t. 662.) ♃. Brazil.—*Encelia canescens*, Cav. B. Reg. 11, t. 909. ♄ Peru.—*Coreopsis lanceolata*, L.; B. M. 5, t. 156. ♃. Carolina.—*C. diversifolia*, DC.; B. M. 63, t. 3474. ♃. Carolina.—*C. senifolia*, Michx.; B. M. 63, t. 3484. ♃. Carolina. Georgia.—*C. delphinifolia*, Lam. (C. verticillata, Willd.; B. M. 5, t. 156.) ♃. Carolina.—*Simsia heterophylla*, DC. ♃. Mexico.—*Leighia linearis*, DC. (Helianthus linearis, Cav.; B. Reg. 7, t. 523.) ♃. Mexico.—*Tithonia tagetiflora*, Desf.; B. Reg. 7, t. 591. ⊙ Mexico.—*T. tubæformis*, Cass.; B. Reg. 18, t. 1519. ⊙ Mexico.—*Bidens tripartita*, L.; E. B. 16, t. 1113. ⊙ Europe.—*B. cernua*, Willd.; E. B. 16, t. 1114. ⊙ Europe.—*B. striata*, Swt.; brit. fl. gard. t. 237.

Mexico.—*B. Coreopsidis*, DC. ♃. Jamaica.—*Cosmos caudatus*, H. B. and Kth. ♃. W. Indies.—*Verbesina aurea*, DC. (Weddelia aurea, Hook; B. M. 62, t. 3384.) ♄ Mexico.—*V. gigantea*, Jacq. ♄ W. Indies.—*V. alata*, L.; B. M. 41, t. 1716. ♃. Jamaica.—*V. crocata*, Less. (Spilanthes crocata, Sims.; B. M. 39, t. 1629.) ♃. Mexico.—*Sanvitalia procumbens*, Lam.; B. Reg. 9, t. 707. ☉ Mexico.—*Flaveria Contrayerva*, Pers.; B. M. 50, t. 2400. ☉ Mexico.—*Adenophyllum coccineum*, Pers. Mexico.—*Tagetes lucida*, Cav.; B. M. 20, t. 740. ☉ Mexico.—*T. tenuifolia*, Cav.; B. M. 46, t. 2045. ☉ Peru.—*T. glandulifera*, Schrank. ☉ Buenos Ayres.—*Porophyllum linifolium*, DC. ♄ Mexico.—*Gaillardia Drummondii*, DC.; (G. bicolor, β. Drummondii, Hook.; B. M. 61, t. 3368.) ☉ Mexico.—*G. lanceolata*, Michx. (G. bicolor, Ell.; B. M. 39, t. 1602.) ♃. Carolina. Florida.—*Florestina pedata*, Cass. (Stevia pedata, Cav.; B. M. 46. t. 2040.) ☉ Mexico.—*Hymenopappus scabioseus*, L'Herit. ♃. Carolina. Georgia.—*Helenium quadridentatum*, Labill; B. Reg 7, t. 598. ☉ Mexico.—*Calea jamaicensis*, Swz. ♄ Jamaica.—*Sogalgina trilobata*, Cass. (Galisoga trilobata, Cav.; B. M. 44, t. 1895.) ☉ Mexico.—*Madaria elegans*, DC. (Madia elegans, Don.; B. Reg. 17, t. 1458.) ☉ California.—*Achillea Ageratum*, L. ♃. S. Europe.—*A. decolorans*, Schrad. (A serrata, E. B. 36, t. 1531.) ♃. England.—*Santolina Chamæcyparissus*, L. ♄ S. Europe.—*Matricaria Chamomilla*, L.; E. B. 18, t. 1232. ☉ Europe.—*Pyrethrum carneum*, Bieb. (P. roseum, Lindl.; B. Reg. 12, t. 1034.) ♃. Caucasus.—*Chrysanthemum coronarium*, L. ☉ S. Europe. N. Africa.—*C. viscosum*, Desf. ☉ S. Spain.—*C. frutescens*, L. ♄ Canaries.—*Artemisia campestris*, L. E. B. 5, t. 338. ♃. Europe.—*A. Moxa*, DC. ♄ China.—*Rhodanthe Manglesii*, Lindl.; B. Reg. 20, t. 1703. ☉ Swan River.—*Helichrysum bicolor*, Lindl.; B. Reg. 21, t. 1814. ☉ Swan River.—*Neurolæna lobata*, R. Br. (Calea lobata, Swz.; B. M. 42, t, 1734.) ♄ Jamaica.—*Gynura angulosa*, DC. ♃. Khassya Mountains.—*G. Pseudochina*, DC. ♃. Canton.—*G. ovalis*, DC. (Cacalia ovalis, Ker.; B. Reg. 2, t. 101.) ♃. China.—*Doronicum Pardalianches*, L.; E. B. 9, t. 630. ♃. Europe.—*Cacalia reticulata*, Vahl. ♃. Mauritius.—*C. flexuosa*, Wall. Cat. ♃. Mauritius.—*Senecio ampullaceus*, Hook; B. M. 63, t. 3487. ♃. Texas.—*S. Petasitis*, DC. (Cineraria Petasitis. Sims.; B. 37, t. 1536.) ♄ Mexico.

e. Cynarëæ, Less.

(*DC. pr.* 6, *p.* 449.)

Calendula, L. (*DC. pr.* 6, *p.* 451.)

1. *officinalis*, L. (*DC. l. c.*;—*B. M.* 59, *t.* 3204;—*Roxb. H. B. p.* 62;—*J. Grah. Cat. B. pl. p.* 101;—*Gärtn. fr.* 2, *p.* 422, *t.* 168, *f.* 4.—Caltha officinalis, *Mönch.*—Caltha vulgaris, *C. Bauh.*) *Common Marygold.* ☉ S. Europe. Fl. large, deep orange, Feb. and March; fr. H. S.
2. *stellata*, Cav. (*icon.* 1, *p.* 3, *t.* 5.—*DC. pr.* 6, *p.* 454.—C. Cristagalli, *Viv.*) ☉ Barbary. Fl. large, yellow, Feb. and March; fr. H. S.

ECHINOPS, L. (*DC. pr.* 6, *p.* 522.)

1. *echinatus*, Roxb. (*fl. ind.* 3, *p.* 447;—*DC. pr.* 6, *p.* 526;—*J. Grah. Cat. B. pl. p.* 95.) ⊙ Mysore. Deccan. Mahableshwur. Flower-heads large, greenish-white, Feb. and March; fr. H. S.

APLOTAXIS, DC. (*pr.* 6, *p.* 538.)

1. *cirsioïdes*, DC. (*l. c.*—Carduus lanatus, *Roxb. fl. ind.* 3, *p.* 408.) তিক বুমা *Tik-booma*. ⊙ Bengal, (Serampore,) &c. Fl. large, pale purple, Feb. and March; fr. H. S.
2. *carthamoïdes*, DC. (Serratula carthamoïdes, *Buch.*;—*Roxb. fl. ind.* 3, *p.* 407.—Saussurea carthamoïdes, *Hb. Buch.*) ⊙ Khassya Mountains. Nepal. Martaban. Fl. small, rose-coloured, and fr. Nov. to March. (*Roxb.*)

AMBERBOA, DC. (*pr.* 6, *p.* 558.)

1. *indica*, DC. (*l. c.*—Serratula indica, *Klein; Willd.; Wall. Cat.*—Athanasia indica, *Roxb. fl. ind.* 3, *p.* 417.—Centaurea indica, *Less.*) ⊙ Peninsula of India. Fl. largish, purplish rose coloured, Feb. and March; fr. H. S. (*Roxb.*)
2. *odorata*, DC. (*pr.* 6, *p.* 559.—Chryseis odorata, *Cass.*) ⊙ Levant. Persia. Tauria. Iberia.
   α. *ambracea*, DC. (Centaurea Amberboi, *Lam.*—C. suaveolens, *Willd.*—C. moschata, β. *L.*—C. ambracea, *Schkuhr.*) ⊙ Fl. largish, bright yellow, sweet-scented, Feb. and March; fr. H. S.
3. *moschata*, DC. (*pr.* 6, *p.* 560.—Centaurea moschata, α. *L.*—*Roxb. fl. ind.* 3, *p.* 444;—*J. Grah. Cat. B. pl. p.* 95.—Chryseis moschata, *Cass.*) সাপসন্দ *Sapusund.*—*Sweet Sultan.* ⊙ Levant. Greece. Fl. large, lilac purplish, sweet scented, C. S.; fr. H. S.

TRICHOLEPIS, DC. (*pr.* 6, *p.* 563.)

1. *radicans*, (*DC. o. c. p.* 564.—Carduus radicans, *Roxb. fl. ind.* 3, *p.* 408.—C. glaber, *Hb. Buch.*—C. punctatus, *Hb. Madr.*) ⊙ Mysore. Fl. middle-sized, lively lilac, R. S.; fr. C. S. (*Roxb.*)

CENTAUREA, L. (*DC. pr.* 6, *p.* 565.)

1. *glastifolia*, L. (*DC. o. c. p.* 568;—*B. M.* 2, *t.* 62.) ♃. Iberia. Armenia. Lower Caucasus. S. Siberia. Fl. large, bright yellow, C. S.
2. *macrocephala*, Muss. Puschk. (*DC. l. c.*;—*B. M.* 31, *t.* 1428.) ♃. Iberia. Fl. very large, deep yellow, C. S.
3. *alba*, L. (*DC. pr.* 6, *p.* 569.) ♃. S. Europe. Fl. largish, white, C. S.
4. *amara*, L. (*DC. l. c.*—Jacea supina, *Lam. fl. fr.* 2, *p.* 53.—C. Jacea, γ. *Lam. dict.* 1, *p.* 666.—C. alba, *Sut. fl. helv.* 2, *p.* 204; not L.) ♃. Meadows of S. Europe.
   ε. *bracteata*, DC. (C. bracteata, *Bertol. dec.* 1. *in Röm. cat.* 1, *p.* 111; —*Scop. del.* 2, *p.* 17, *t.* 9.) ♃. S. France. Italy. Fl. large, white, R. and C. S.
5. *Jacea*, L. (*DC. pr.* 6, *p.* 570;—*E. B.* 24, *t.* 1678.—Cyanus Jaceus, Baumg.) ♃. Meadows of middle Europe. Fl. large, bright purple, R. and C. S.; fr. C. S.

6. *nigra*, L. (*DC. pr.* 6, *p.* 571;—*E. B.* 4, *t.* 278.—Cyanus niger, *Gärtn. fr.* 2, *p.* 382, *t.* 161, *f.* 4.—Jacea nigra, *Cass.*—Rhaponticum ciliatum, *Lam.*) ♃. Meadows of Europe. Fl. large, bright purple, R. and C. S.; fr. C. S.
7. *phrygia*, L. (*DC. pr.* 6, *p.* 573;—*fl. dan. t.* 520.—Lepteranthus hygrometricus, *Cass.*) ♃. Alpine meadows of France, Switzerland, Piedmont, Germany, and Denmark. Fl. large, violet, red, C. S.; fr. March.
8. *Cyanus*, L. (*DC. pr.* 6, *p.* 578;—*E. B.* 4, *t.* 277;—*J. Grah. Cat. B. pl. p.* 95.—Jacea segetum, *Lam.*—Cyanus arvensis, *Mönch.*—Cyanus segetum, *C. Bauh.*—Cyanus vulgaris, *Lob.*; *Cass.*) *Corn Blue-bottle.* ⊙ Corn-fields of Europe. Fl. large, bright blue, with a purplish disk, Feb. and March; fr. April.
9. *paniculata*, L. (*DC. pr.* 6, *p.* 583.—Jacea paniculata, *Lam.*) ♂. Hills and sterile places of S. France, Spain, Italy, &c. Fl. largish, white, R. S.
10. *melitensis*, L. (Syn. uncertain.—*DC. pr.* 6, *p.* 593.) ⊙ Malta. Sicily. Madeira, Teneriffe. Fl. largish, yellow, Feb. and March; fr. April.
11. *sphærocephala*,, L. (*DC. pr.* 6, *p.* 599.—*B. M.* 52, *t.* 2551.—C. cæspitosa, *Vahl.*) ♃. Dry maritime places of Italy. Sicily. Corsica. Sardinia, Spain, and N. Africa. Fl. large, purple, C. S.

Cnicus, Vaill. (*DC. pr.* 6, *p.* 606.)

1. *benedictus*, L. (*DC. l. c.*;—*Gärtn. fr.* 2, *p.* 385, *t.* 165, *f.* 5.—Centaurea benedicta, *L.*;—*Roxb. H. B. p.* 62.—Carduus benedictus, *Cam.*—Calcitrapa lanuginosa, *Lam.*) ⊙ Stony and cultivated places of Persia, Tauria, Greece, &c. Fl. large, yellow, Feb. and March.

Carthamus, Tournef. (*DC. pr.* 6, *p.* 611.)

c. tinctorius, L. (*DC. o. c. p.* 612;—*B. Reg.* 2, *t.* 170;—*Gärtn. fr.* 2, *p.* 375, *t.* 161, *f.* 2;—*Lam. ill. t.* 661, *f.* 3;—*Roxb. fl. ind.* 3, *p.* 409;—*J. Grah. Cat. B. pl. p.* 95;—*Rumph.* 5, *t.* 79, *f.* 2,) কুসুম *Koosoom*, *Safflower*. ⊙ India, from whence it has wandered into Egypt, the Levant, N. Africa, Europe, Madeira, &c. Fl. large, deep orange, C. S.; fr. H. S. Cultivated in India for the use of the dyers, as also for the oil obtained from the seeds. (*Roxb.*)

Silybum, Vaill. (*DC. pr.* 6, *p.* 616.)

1. *marianum*, Gärtn. (*fr.* 2, *p.* 378, *t.* 168, *f.* 2;—*DC. l. c.*—Carduus marianus, *L.*;—*E. B.* 14, *t.* 976;—*Roxb. H. B. p.* 60.—Silybum maculatum, *Mönch.*—Cirsium maculatum, *Scop.*—Carthamus maculatus, *Lam.*) ⊙ S. Europe. England. W. Asia. Fl. large, purplish, Feb. and March.; fr. H. S.

Onopordon, Vaill. (*DC. pr.* 6, *p.* 617.)

1. *Acanthum*, L. (*DC. o. c. p.* 618;—*E. B.* 14, *t.* 977;—*Roxb. H. B. p.* 60.—Acanos Spina, *Scop.*) *Cotton Thistle.* ♂. Europe. Fl. large, deep purple, C. S.

CARDUUS, Tournef. (*DC. pr.* 6, *p.* 621.)

1. *nutans*, L. (*DC. l. c.*;—*E. B.* 16, *t.* 1112.—C. apenninus, *Jan. herb.* —C. montosus, *Poll.*) ⊙ Europe. Fl. large, rich crimson, strongly smelling of musk, Feb.; fr. H. S.
2. *tenuiflorus*, Sm. (*E. B.* 6, *p.* 412;—*DC. pr.* 6, *p.* 626;—*Roxb. H. B. p.* 60.) ⊙ England. S. Europe, from Madeira to Tauria and Persia. Fl. smallish, pale purple, Feb. and March.
3. *arabicus*, Jacq. (*Coll.* 1, *p.* 56;—*icon. rar.* 1, *t.* 166;—*DC. pr.* 6, *p.* 626.—C. Galactites, *Lam.*) ⊙ Arabia. Syria. Malta. Sicily. Fl. like those of *No.* 2, Feb. and March; fr. H. S.

CYNARA, Vaill. (*DC. pr.* 6, *p.* 620.)

1. *Scolymus*, L. (*DC. l. c.*;—*Roxb. fl. ind.* 3, *p.* 409;—*J. Grah. Cat. B. pl. p.* 95; excl. B. M.) *Artichoke.* ♃. Native place uncertain. Fl. very large, blue-violet, Feb. and March; fr. H. S.

CIRSIUM, Tournef. (*DC. pr.* 6, *p.* 634.)

1. *lanceolatum*, Scop. (*DC. o. c. p.* 636.—Carduus lanceolatus, *L.*;—*E. B.* 2, *t.* 107;—*Roxb. H. B. p.* 60.—Cnicus lanceolatus, *Hoffm.*—Lophiolepis dubia, *Cass.*—Eriolepis lanceolata, *Cass.*) ♂. Fl. large, pale purple, Feb. and March.
2. *horridulum*, Michx. (*DC. pr.* 6, *p.* 651;—*Roxb. H. B. p.* 60.—Carduus spinosissimus, *Wall.*; not Vill.—Carduus horridulus, *Pers.*—Cnicus horridulus, *Ell.*) ♃. Carolina. Fl. large, purple. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

NOTOBASIS, Cass. (*DC. pr.* 6, *p.* 660.)

1. *syriaca*, Cass. (*DC. l. c.*—Carduus syriacus, *L.*;—*Roxb. H. B. p.* 60.—Cirsium syriacum, *Gärtn. fr.* 2, *p.* 383, *t.* 163, *f.* 2;—Cirsium maculatum, *Mönch.*—Cnicus syriacus, *Willd.* excl. syn. Bauh.—Cnicus obvallatus, *Salzm.*) ⊙ Madeira. Portugal. N. Africa. Corsica. Italy. Sicily. Archipelago. Egypt. Syria. Fl. purple. In H. C. G. fl. Feb. and March. (*Roxb.*)

LAPPA, Tournef. (*DC. pr.* 6, *p.* 661.)

1. *tomentosa*, Lam. (*DC. l. c.*—Arctium tomentosum, *Schkuhr.*—A. Lappa, β. *L.*—A. Bardana, *Willd.*;—*E. B.* 35, *t.* 2478.) ♂. Europe. Fl. largish, bluish-red, C. S.
2. *minor*, DC. (*l. c.*—Arctium minus, *Schkuhr.*—A. Lappa, *E. B.* 18, *t.* 1228.) *Clot-Bur.* ♂. Europe. W. Asia. Fl. largish, purple, C. S.

JURINEA, Cass. (*DC. pr.* 6, *p.* 673.)

1. *alata*, Cass. (*DC. o. c. p.* 675.—Serratula alata, *Desf.*; not Poir. Carduus alatus, *Don.*;—*Swt. brit. fl. gard.* 2, *t.* 103.) ♂. Caucasus. Fl. purple, C. S.

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* *Calendula arvensis*, L. ⊙ S. Europe.—*C. parviflora*. Rafin. ⊙ Sicily.—*Cryptostemma calendulaceum*, R. Br. ⊙ C. G. H.—*C. hypochondriacum*, R. Br. ⊙ C. G. H.—*Echinops niveus*, Wall.; Royle ill. 56, f. 1.

⊙ Shrinagur. Mussooree.—*Carlina vulgaris*, L.; E. B. 16, t. 1144. ♂ Europe. Levant.—*C. sicula*, L. ⊙ S. Europe.—*Centaurea pectinata*, L. ♃ S. France.—*C. Scabiosa*, L.; E. B. 1, t. 56. ♃ Europe.—*C. spinosa*, L.; B. M. 51, t. 2493. ♄ Greece. Levant.—*C. solstitialis*, L.; E. B. 4, t. 243. ⊙ England. S. Europe.—*C. aurea*, Ait.; B. M. 12, t. 421. ♃ S. Europe.—*C. Calcitrapa*, L.; E. B. 2, t. 125. ⊙ Europe.—*Kentrophyllum lanatum*, DC. (Carthamus lanatus, L.; B. M. 47, t. 2142.) ⊙ S. Europe.—*K. arborescens*, Hook.; B. M. 61, t. 3302.—*Carduncellus cæruleus*, DC. (Carthamus cærulens, L.; B. M. 49, t. 2293.) ♃ S. Europe.—*Onopordon arabicum*, L.; B. M. 61, t. 3299. ♂ Greece. S. France. Portugal.—*Cynara Cardunculus*, L.; B. M. 60, t. 3241. ♃ S. Europe.—*Cirsium arvense*, Scop. (Carduus arvensis, L.; B. 14, t. 975.) ♂ S. Europe.—*Erythrolæna conspicua*, Swt.; B. M. 56, t. 2909. ♃ Mexico.—*Serratula tinctoria*, L.; E. B. 1, t. 38. ♃ Europe.

B. Labiatifloræ, *DC.*

(*Pr.* 7, *p.* 1.)

f. Mutisiëæ.

(Mutisiaceæ, *Less. DC. l. c.*)

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* *Mutisia speciosa*, Hook.; B. M. 54, t. 2705.—*Ainsliea pteropoda*, DC. ♃ Nepal.—*Berniera nepalensis*, DC. ♃ Khassya Mountains. Nepal.—*Tricocline incana*, Cass. ♃ Brazil.—*Lycoseris mexicana*, Cass. and Less. ♄ Mexico.—*Anastraphia ilicifolia*, Don. ♄ Havannah.—*Onoseris reflexa*, Less. (Centroclinium reflexum, Hook.; B. M. 58, t. 3114.) ♄ Peru.—*Dicoma lanuginosa*, DC. ♃ Madras. Trichinopoly.—*Chaptalia tomentosa*, Vent. ♃ Carolina. Florida.—*C. dentata*, Cass. ♃ W. Indies.—*Leria nutans*, DC. ♃ Brazil.—*Loxodon brevipes*, Cass. ♃ Brazil.—*Chevreulia stolonifera*, Cass. ♃ Brazil.

g. Nassauviëæ, Cass.

(Nassauviaceæ, *Less.; DC. pr.* 7, *p.* 48.)

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* *Triptilion spinosum*, Ruiz. and Pav. ♃ Chili.—*T. cordifolium*, Lag.; B. R. 10, t. 853. ⊙ Chili.—*Trixis corymbosa*, D. Don. ♄ Mexico.—*T. frutescens*, P. Browne. ♄ Jamaica. Mexico.—*T. divaricata*, Spreng. ♄ Brazil.—*T. brasiliensis*, DC. ♃ Buenos Ayres.—*Moscharia bipinnatifida*, Ruiz. and Pav.; B. Reg. 18, t. 1564. ⊙ Chili.

C. Ligulifloræ, DC.

(*Pr.* 7, *p.* 74.)

h. Cicoriëæ.

(Cichoraceæ, *Vaill.; DC. l. c.*)

Scolymus, Tournef. (*DC. pr.* 7, *p.* 75.)

1. *maculatus*, L. (*DC. l. c.*—*Lam. ill. t.* 659.—S. angiospermos, *Gärtn. fr.* 2, *p.* 356, *t.* 157, *f.* 4.—S. pectinatus, *Cass.*) ⊙ S. Europe. N. Africa. Fl. large, yellow, C. S.; fr. 0.

Lampsana, Tournef. (*DC. pr.* 7, *p.* 76.)

1. *communis*, DC. (*l. c.*—Lapsana communis, *L.*; *Gärtn. fr.* 2, *p.* 353, *t.* 175, *f.* 1;—*E. B.* 12, *t.* 844.) ⊙ Europe. Fl. small, light yellow, Feb. and March; fr. April.
2. *grandiflora*, Bieb. (*DC. o. c. p.* 77.—L. lyrata, *Willd.*—L. glandulifera, *Cass.*) ⊙ Fl. large, yellow, Feb. and March. Caucasus. Tauria.

Rhagadiolus, Tournef. (*DC. pr.* 7, *p.* 77.)

1. *stellatus*, Gärtn. (*fr.* 2, *p.* 354, *t.* 157, *f.* 2.)
   γ. *edulis*, DC. (R. edulis, *Gärtn. fr.* 2, *p.* 354.—Lapsana Rhagadiolus, *L.*) ⊙ S. Europe. Fl. smallish, yellow, Feb. and March; fr. April.

Hyoseris, L. (*DC. pr.* 7, *p.* 79.)

1. *microcephala*, Cass. (*DC. l. c.*—H. scabra, *L.*; not Mönch.—H. adspersa, *Mönch.*—Hedypnoïs scabra, *Less.*—Rhagadiolus scaber, *All.*) ⊙ Along the Mediterranean. Fl. small, yellow, Feb. and March; fr. April.
2. *radiata*, L. (*DC. l. c.*—Hedypnoïs radiata, *Gärtn. fr.* 2, *p.* 373, *t.* 160, *f.* 3.—Leontodon radiatum, *Lam.*—Rhagadiolus stellatus, *All.*—Taraxacum saxatile, *Bocc.*) ♃. Along the Mediterranean. Fl. largish, yellow, C. S.

Hedypnois, Tournef. (*DC. pr.* 7, *p.* 81.)

1. *cretica*, Willd. (*DC. l. c.*;—Hyoseris cretica, *L.*—*Gärtn. fr.* 2, *p.* 360, *t.* 160, *f.* 2;—*Roxb. H. B. p.* 60.—H. scabra, *Mönch*; not L.—Rhagadiolus creticus, *All.*) ⊙ Creta. Nizza. Spain. Fl. yellow. In H. G. fl. C. S. (*Roxb.*)
2. *polymorpha*, DC. (*pr.* 7, *p.* 81.) ⊙ Mediterranean Coasts. Fl. smallish, yellow, Feb. and March; fr. April.

Cichorium, Tournef. (*DC. pr.* 7, *p.* 83.)

1. *Intybus*, L. (*DC. o. c. p.* 84;—*Gärtn. fr.* 2, *p.* 357, *f.* 6;—*E. B.* 8, *t.* 539;—*Roxb. H. B. p.* 60.) *Succory*. ♃. Road-sides of Europe. Fl. large, pale-blue, C. S.
2. *Endivia*, Willd. (*DC. l. c.*) ⊙ ♂ *Endivia*.
   α. *Cosnia*, DC. (C. Cosnia, *Buch. in Wall. Cat.*) Patna. Nepal. Kemaon.
   β. *sativa*, DC. (C. Endivia, *L.*;—*Roxb. H. B. p.* 60;—*J. Grah. Cat. B. pl. p.* 94.) Cultivated in gardens. Fl. large, blue and white, C. S.; fr. H. S.

Tolpis, Bivon. (*DC. pr.* 7, *p.* 85.)

1. *barbata*, Gärtn. (*fr.* 2, *p.* 373, *t.* 160, *f.* 1;—*Lam. ill. t.* 651;—*DC. o. c. p.* 86.—Crepis barbata, *L.*—*B. M.* 1, *t.* 35; not Mill.—C. bætica, *Mill.*—Swertia barbata, *All.*—Drepania barbata, *Desf.*—D. falcata, *Rouss.*) ⊙ S. Europe. N. Africa. Fl. largish, straw-coloured, with a dark brown disk, Feb.; fr. H. S.
2. *altissima*, Pers. (*DC. pr.* 7, *p.* 86.—T. sexaristata, *Bivon.*—Crepis altissima, *Balb.*—C. ambigua, *Balb. diss. p.* 4, *t.* 1.—C. virgata, *Desf.*

—Drepania ambigua, *DC. cat. h. monspel.*—Schmidtia ambigua, *Cass.*) ♂ ⊙ Liguria. Corsica. N. Africa. Fl. yellowish, Feb. and March; fr. April.

Hypochæris, Vaill. (*DC. pr.* 7, *p.* 90.)

1. *glabra*, L. (*DC. l. c.*;—*Gärtn. fr.* 2, *p.* 374, *t.* 160, *f.* 4;—*Lam. ill. t.* 646, *f.* 1;—*Curt. lond.* 3, *t.* 149;—*E. B.* 9, *t.* 575.—H. stellata, *Gat.*—H. dimorpha, *Brot. fl. lus.* 1, *p.* 332.—H. adscendens, *Bort. phyt. lus. t.* 25.) ⊙ Europe. Fl. small, yellow, Feb. and March; fr. April.
2. *radicata*, L. (*DC. pr.* 7, *p.* 91;—*E. B.* 12 *t.* 831;—*Curt. lond.* 3, *t.* 168.—Achyrophorus radicatus, *Scop*;—*Gärtn. fr.* 2, *p.* 370, *t.* 159, *f.* 6.—Porcellites radicata, *Cass.*—Seriola taraxacifolia, *Salzm.*) ♃. Europe. Fl. large, yellow, C. S.

Achyrophorus, Scop. (*DC. pr.* 7, *p.* 92.)

1. *hispidus*, DC. (*l. c.*—Hypochæris hispida, *Willd. h. berol. t.* 46; not Roth.) ♃. Native country unknown. Fl. largish, yellow, C. S.
2. *maculatus*, DC. (*pr.* 7, *p.* 93.—Hypochæris maculata, *L.*; *Fl. dan. t.* 149.) ♃. Middle and N. Europe.
   β. *monocephalus*, DC. (Hypochæris maculata, *E. B.* 4, *t.* 225.) ⊙ England, &c. Fl. largish, yellow, C. S.

Seriola, L. (*DC. pr.* 7, *p.* 95.)

1. *ætnensis*, L. (*DC. l. c.*;—*Gärtn. fr.* 2, *p.* 370, *t.* 159, *f.* 5;—*Jacq. obs.* 4, *p.* 3, *t.* 79;—*Lam. ill. t.* 656, *f.* 1.—S. urens, *All.*; not L. S. hispida, *Mönch.*) ⊙ S. Europe. Fl. yellow, Feb. and March; fr. April.

Thrincia, Roth. (*DC. pr.* 7, *p.* 99.)

1. *hirta*, DC. (*l. c.*; not Roth.—Leontodon hirtus, *L.*;—*Curt. lond.* 2, *t.* 160.—Hedypnois hirta, *Sm.*; *E. B.* 8, *t.* 555.—Hyoseris hirta, *Gärtn. fr.* 2, *p.* 373.—Hyoseris taraxacoides, *Lam.*) ♃. Europe. Fl. smallish, externally orange, internally yellow, C. S.
2. *hispida*, Roth. (*DC. pr.* 7, *p.* 100.—T. hirta, β. crassa, *Richt. lips.*—T. taraxacoïdes, *a. Gand.*—Hyoseris taraxcoïdes, *Vill. dauph.* 3, *p.* 166, *t.* 25; not Lam.—Colobium hispidum, *Roth.*—Rhagadiolus taraxcoïdes, *All.*—Leontodon saxatilis, *Lam.*) ⊙ Europe. Fl. like those of *No.* 1, Feb. and March.
3. *maroccana*, Pers. (*DC. l. c.*—T. mauritanica, *Spreng.*—Hyoseris hispida, *Schousb.*;—*Willd.*) ⊙ Tangier. Mogador. Fl. largish, yellow, externally brownish, March; fr. H. S.

Leontodon, L. (*DC. pr.* 7, *p.* 101.)

1. *hastilis*, L. (*DC. o. c. p.* 102.—L. danubialis, *Jacq. austr. t.* 164.—L. proteiformis, var. A. B. C. *Vill. dauph.* 3, *p.* 87, *t.* 24.—Apargia hastilis, *Hoffm.*—A. danubialis, *Scop.*—A. livida and heterophylla, *Mönch.*—Picris danubialis, *All.*—Virea hastilis, *Gärtn. fr.* 2, *p.* 365, *t.* 159, *f.* 3.) ♃. Humid places of Europe. Fl. large, yellow, C. S.; fr. H. S.

2. *caucasicus*, Fisch. (not Stev.—*DC. pr.* 7, *p.* 104.—Apargia caucasica, *Bieb.*) 4. Caucasus. Fl. large, yellow, C. S.; fr. H. S.

APARGIA, Willd. (*DC. pr.* 7, *p.* 107.)

? 1. *Hamones*, Buch. (*Roxb. H. B. p.* 60.) ⊙ Nepal, from whence it was introduced into H. C. G., in 1802, where it fl. C. S.; fr. H. S. (*Roxb.*)

PODOSPERMUM, DC. (*pr.* 7, *p.* 110.)

1. *laciniatum*, DC. (*o. c. p.* 111.—Scorzonera laciniata, *L.*;—*Gärtn. fr.* 2, *p.* 367, *t.* 159, *f.* 1.—S. paucifida, *Lam.*—S. petiolaris, *Lapeyr*; excl. syn.) ♂ S. Europe. Fl. yellow, C. S.; fr. H. S.

GEROPOGON, L. (*DC. pr.* 7, *p.* 111.)

1. *glaber*, L. (*DC. l. c.*—*B. M.* 14, *t.* 479.—*Jacq. h. vind.* 1, *t.* 33.—G. australis, *Spreng.*) ⊙ Corn-fields about Nizza. Sardinia. Sicily. Spain. Madeira. Italy. Greece. Mogador. Fl. largish, pale rose-coloured, Feb. and March; fr. H. S.

TRAGOPOGON, Tournef. (*DC. pr* 7, *p.* 112.)

1. *porrifolius*, L. (*DC. o. c. p.* 113;—*Jacq. icon. rar. t.* 159.—*E. B.* 9, *t.* 638.—T. sativus, *Gat.*) *Salsify.* ⊙ Europe. Fl. large, deep purple, Feb. and March; fr. C. S. The root, when boiled or stewed, has a mild sweetish flavour, and used formerly to be much more cultivated for the table than it is at present. (*Sm.*)

UROSPERMUM, Scop. (*DC. pr.* 7, *p.* 116.)

1. *picroïdes*, Desf. (*DC. l. c.*—Tragopogon picroïdes. *L.*;—*Lam. ill. t.* 646, *f.* 3.—T. aculeatum, *Mönch.*—Arnopogon picroïdes, *Willd.*;—*Roxb. H. B. p.* 60.) ⊙ Greece. Italy. S. France. Spain, Madeira, &c. Fl. large, yellow, March; fr. April.

SCORZONERA, L. (*DC. pr.* 7, *p.* 117.)

1. *hispanica*, L. (*DC. o. c. p.* 120;—*Lam. ill. t.* 647, *f.* 5;—*Roxb. H. B. p.* 60.—S. sativa, *Gater.*—S. denticulata, *Lam. fl. fr.*) 4. Spain. Fl. large, yellow, C. S. *Root* edible.

LACTUCA, Tournef. (*DC. pr.* 7, *p.* 133.)

1. *sativa*, L. (*DC. o. c. p.* 138;—*Roxb. fl. ind.* 3, *p.* 403;—*J. Grah. Cat. B. pl. p.* 94.—L. romana longa dulcis, *J. Bauh.*—L. romana, *Gars. ic. t.* 315.—L. sativa longifolia, *Lam.*—L. sativa and bracteata, *Wall. Cat.*) *Garden Lettuce.* ⊙ Native country unknown. Persia? Fl. small, pale yellow, Feb. and March; fr. H. S.

2. *Heyneana*, DC. (*pr.* 7, *p.* 140.—Prenanthes sonchifolia, *Willd. sp.* 3, *p.* 1541;—*Heyne, in Wall. Cat.*—P. racemosa, *Roxb. fl. ind.* 3, *p.* 405; not Michx.—Chondrilla racemosa, *Poir.*) ⊙ Coromandel. Negapatam. Fl. small, yellow. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

TARAXACUM, Hall. (*DC. pr.* 7, *p.* 145.)

1. *Dens leonis*, Desf. (*DC. l. c.*—T. Leontodon, *Dumort.*—T. officinale, *Vill.*—Leontodon Taraxacum, *L.*;—*E. B.* 8, *t.* 510;—*Roxb. H. B. p.* 60;—*Gärtn. fr.* 2, *p.* 363, *t.* 158, *f.* 7.—L. officinalis, *With.*—L. vulgaris, *Lam.*—Hedypnois Taraxacum, *Scop.*) *Dandelion.* 4. Mea-

dows and road-sides of Europe, W. Asia, and N. Africa. Fl. large, bright yellow. Was introduced into H. C. G. in 1807, but had not fl. up to 1814.

Borkhausia, Mönch. (*DC. pr.* 7, *p.* 152.)

1. *alpina*, DC. (*o. c. p.* 153.—B. scariosa, *Mönch.*—Crepis alpina, *L.*;—*Gärtn. fr.* 2, *p.* 354, *t.* 158, *f.* 8.—C. alpina and vesicaria, *Lam.*) ⊙ Mountains of Tauria, Siberia, and Asia Minor. Fl. largish, yellow, Feb. and March.

2. *rubra*, Mönch. (*DC. pr.* 7, *p.* 157.—Crepis rubra, *L.*—C. incarnata, *Vis.*—Picris rubra, *Lam.*) ⊙ Dalmatia. Greece. S. Italy. Fl. largish, pale rose-coloured, March; fr. H. S.

3. *foetida*, DC. (*pr.* 7, *p.* 158.—Crepis foetida, *L.*; *E. B.* 6, *t.* 406; *Roxb. H. B. p.* 60.—C. fœtens, *Lk.*—C. barbata, *Mill.*; not *L.*—Picris fœtida, *Lam.*—Wibelia graveolens, *fl. wett.* 3, *p.* 144.—Hostia fœtida, *Mönch.*) ⊙ Middle and S. Europe. Teneriffe. Tauria. Fl. largish, pale-yellow, Feb. and March; fr. H. S.

Crepis, L. (*DC. pr.* 7, *p.* 160.)

1. *pulchra*, L. (*DC. l. c.*;—*E. B.* 33, *t.* 2325.—Chondrilla pulchra, *Lam.*—Lampsana pulchra, *Vill.*—Prenanthes paniculata, *Mönch.*—P. hieracifolia, *Willd.*—P. pulchra, *DC. fl. fr.*—P. viscosa, *Baumg.*—Hieracium pulchrum, *J. Bauh.*—Phæcasium lampsanoides, *Cass.*) ⊙ England. France. Germany. Italy. Tauria. W. Asia. Fl. small, pale-yellow, Feb. and March; fr. H. S.

Zacintha, Tournef. (*DC. pr.* 7, *p.* 178.)

1. *verrucosa*, Gärtn. (*fr.* 2, *p.* 358, *t.* 157, *f.* 7;—*DC. l. c.*;—*Desf. fl. alt.* 2, *p.* 233.—Z. pendula, *Räusch.*—Lapsana Zacintha, L.—Ragadiolus Zacintha, *All.*) ⊙ S. Europe. N. Africa, along the Mediterranean. Fl. yellow, March; fr. April and May.

Microrrhynchus, Less. (*DC. pr.* 7, *p.* 180.)

1. *asplenifolius*, DC. (*o. c. p.* 181. excl. syn. Roxb. which does not exist.—Prenanthes asplenifolia, *Willd.*;—*Roxb. fl. ind.* 3, *p.* 404.—P. dichotoma, *Wall. Cat.*) তিক চামা *Tik-chama.* ♂ Coromandel. Bengal, (Serampore.) Fl. largish, bright yellow, C. S.; fr. H. S.

Picridium, Desf. (*DC. pr.* 7, *p.* 182.)

1. *tingitanum*, Desf. (*DC. l. c.*—Scorzonera tingitana, *L.*;—*B. M.* 4, *t.* 142;—*Roxb. H. B. p.* 60.—S. tingitana and ciliata, *Forsk.*—Reichardia tingitana, *Roth.*—R. runcinata, *Mönch.*—Sonchus hispidulus, *Bové.*—S. pinnatifidus, *Lag.*) ⊙ Sea-rocks of Barbary, (especially at Tangier,) Egypt, Sicily, and the Balearic Islands. Fl. large, golden yellow, March; fr. H. S.

2. *vulgare*, Desf. (*DC. l. c.*—Scorzonera picroïdes, *L.*—Sonchus picroïdes, *Lam.*;—*All. ped. t.* 16, *f.* 1;—*Gärtn. fr.* 2, *p.* 359, *t.* 158, *f.* 2.—S. squamosus, *Lam. fl. fr.*—Reichardia picroïdes, *Roth.*—R. integrifolia, *Mönch.*) ⊙ Cultivated places along the Mediterranean. Fl. like those of *No.* 1. but smaller, March; fr. H. S.

SONCHUS, L. (*DC. pr.* 7, *p.* 184.)

1. *orixensis*, Roxb. (*fl. ind.* 3, *p.* 402;—*DC. pr.* 7, 190.) বন পালঙ্গ *Bun-palung*. ⊙ Coromandel, (Samulkota.) Bengal, (Serampore,) &c. Fl. large, yellow, Feb. and March; fr. H. S. Cattle are fond of every part of the plant, which on being wounded, discharges much milky juice that thickens into a substance like fresh, soft opium. (*Roxb.*)
2. *ciliatus*, Lam. (*DC. pr.* 7, *p.* 185.—S. oleraceus, *L. α. and* β.—S. oleraceus, *E. B.* 12, *t.* 843;—*Roxb. fl. ind.* 3, *p.* 402; excl. syn. Willd. 3, p. 154.—*J. Grah. Cat. B. pl. p.* 94, excl. syn. S. orixensis *Roxb.*—S. asper, *Blackw. herb. t.* 30;—*Gärtn. fr.* 2, *p.* 360, *t.* 158, *f.* 2; not Fuchs. Bess., &c.—S. lævis. *Vill.*—Hieracium oleraceum, *Scop.*) ⊙ Europe. Peninsula of India. Bengal, (Serampore.) &c. Fl. as in *No.* 1, Feb. and March; fr. H. S. Cattle are fond also of this species, which, on being wounded, yields a milky juice.

YOUNGIA, Cass. (*DC. pr.* 7, *p.* 192.)

? 1. *procumbens*, DC. (*pr.* 7, *p.* 193.—Prenanthes procumbens, *Roxb. fl. ind.* 3, *p.* 404.) ♂. Bengal. Fl. yellow. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

? 2. *acaulis*, DC. (*l. c.*—Prenanthes acaulis, *Roxb. fl. ind.* 3, *p.* 403.) ♃. Dinagepore. Fl. yellow. In H. C. G. fl. March and April; fr. C. S. (*Roxb.*)

? 3. *linifolia*, (Prenanthes linifolia, *Roxb. H. B. p.* 60.) ♃. Bengal. In H. C. G. fl. and fr. C. S. (*Roxb.*)

HIERACIUM, L. (*DC. pr.* 7, *p.* 199.)

1. *Pilosella*, L. (*DC. l. c.;—E. B.* 16, *t.* 1093.) ♃. Hills and road-sides of Europe. Fl. largish, bright yellow, C. S.
2. *glomeratum*, Tröl. MSS. (*DC. pr.* 7, *p.* 207.—H. cymosum, *fl. dan. t.* 810; not Vill.) ♃. Denmark. Prussia. Fl. smallish, yellow, C. S.
3. *sabaudum*, All. (*Pedem. No.* 796, *t.* 27, *f.* 2; not L. suec, nor German authors;—*DC. pr.* 7, *p.* 226;—*Lapeyr.*—H. canadense, *Hort. gotting.*—H. cotoneifolium, *Ger. h. exsicc.*—H. virgatum, *Hort. greifsw.*—H. sylvaticum, *Lapeyr;* not Sm.) ♃. Mountains and woods of S. Europe. Fl. pale yellow, C. S.; fr. H. S.

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* *Scolymus hispanicus*, L. ♂. Spain.—*S. grandiflorus*. Desf. ♃. Barbary. Sicily.—*Kölpinia linearis*, Pall. ⊙ Siberia. Bagdad.—*Arnoseris pusilla*, Gärtn. (Hyoseris minima, L.; E. B. 2, t. 95.) ⊙ Europe.—*Hyoseris lucida*, L. ♃. Greece. Egypt. Sicily.—*Aposeris foetida*, Less. ♃. S. Europe.—*Catananche coerulea*, L.; B. M. 9, t. 293. ⊙ S. Europe.—*Tolpis umbellata*, Bert. ⊙ S. Europe.—*T. macrorrhiza*, DC. (Crepis macrorrhiza, Banks.; B. M. 57, t. 2988.) ♃. Madeira.—*Krigia virginica*, Willd. ⊙ N. America.—*Microseris pygmæa*, Hook. and Arn. ⊙ Valparaiso.—*Cynthia Boschii*, DC. ♃. Carolina.—*Oporinia autumnalis*, Don. (Hedypnöis autumnalis, E. B. 12, t. 830?) ♃. Europe.—*Podospermum calcitrapifolium*, DC. ♃. S. Europe.—*Trago-*

pogon pratensis, L.; E. B. 7, t. 434. ♂ Europe, Levant.—*Urospermum Dalechampii*, Desf. (Arnopogon Dalechampii, Willd.; B. M. 39, t. 1623.) ♂ Italy. Spain.—*Scorzonera purpurea*, L.; B. M. 49, t. 2294. 2. Germany.—*S. humilis*, L. 2. Europe.—*S. mollis*, Bieb.; B. M. 57, t. 3027. 2. Tauria.—*Picris hieracioïdes*, L.; E. B. 3, t. 196. ♂ Europe.—*Helminthia echioïdes*, Gärtn. (Picris echioïdes, L.; E. B. 14, t. 972.) ⊙ England. France.—*Lactuca perennis*, L.; B. M. 47, t. 2130. 2. Europe.—*L. saligna*, L.; E. B. 10, t. 707. ⊙ Europe. Tauria. Syria.—*L. virosa*, L. E. B. 28, t. 1957. ⊙ Europe.—*L. Scariola*, L.; E. B. 4, t. 268. ♂ Europe.—*L. muralis*, DC. (Prenanthes muralis, L.; E. B. 7, t. 457.) ⊙ Europe.—*Pyrrhopappus carolinianus*, Nutt. 2. Carolina.—*Taraxacum Wallichii*, DC. 2. Oude.—*T. palustre*, DC. (Leontodon palustris, Sm.; E. B. 8, t. 553.) 2. Swampy places of Europe and N. America.—*Borkhausia setosa*, DC. ⊙ S. Europe.—*Crepis tectorum*, L.; E. B. 16, t. 1111. ⊙ Europe. Siberia.—*C. biennis*, L.; E. B. 3, t. 149. ⊙ Europe.—C. *hieracioïdes*, Willd. E. B. 31, t. 2210. 2. Europe.—*Phænopus vimineus*, DC. ⊙ S. Europe.—*Endoptera Dioscoridis*, DC. ⊙ S. Europe.—*Microrrhynchus sarmentosus*, DC. Wight. ill. 2, t. 133. 2. Negapatam. Penang. Mauritius.—*Zollikoferia pumila*, DC. 2. Spain.—*Sonchus arvensis*, L.; E. B. 10, t. 674. 2. Europe.—*Hieracium Auricula*, L.; E. B. 33, t. 2368. ♄ Wet places of Europe.—*H. aurantiacum*, L.; E. B. 21, t. 1469. 2. Europe.—*H. sylvaticum*, Sm.; E. B. 29, t. 2031. 2. England. France. Italy.—*H. venosum*, L. 2. Carolina.—*H. umbellatum*, L.; E. B. 25, t. 1771. 2. Meadows of Europe.—*H. sylvestre*, Tausch. (H. sabaudum, E. B. 5, t. 349; not L.) 2. Europe—*Nabalus Fraseri*, DC. 2. S. Carolina.—*Andryala ragusina*, L. 2. Ragusa.—*A. sinuata*, L. ♂ S. France.—*Mulgedium alpinum*, Less. (Sonchus alpinus, L.; E. B. 34, t. 2425.) 2. Europe.

ORDER CLXXXVII.—DIPSACEÆ, Juss.—Lindl. Nat. Syst. p. 264.

THE SCABIOUS TRIBE.

Herbs or undershrubs, by Lindl. referred to 7 genera. Of these, DC. pr. enumerates 59 species from Europe; 11 from the Orient; 8 from S. Africa or 10 (Harvey); 7 from Dahuria, Tauria, and Caucasus; 6 from N. Africa; 4 from Siberia; 3 from the Azores and Canaries; 2 from Persia; and 1 from Arabia. In the E. Indies have been found, according to DC. Wall. Cat. and Royl. ill. 16 species; viz. 7 of *Dipsacus;* 4 of *Scabiosa;* and 5 of *Morina;*—one of these from the Neelgherries, one from Cochin China, (uncertain,) one from Taong-Dong, one from the Khassya Mountains, and the rest from the Himalayas. Properties unimportant.

DIPSACUS, Tournef. (*DC. pr.* 4, *p.* 645;—*G. Don's Mill. dict.* 3, *p.* 682;—*W. and A. pr.* 1, *p.* 444.)

1. *sylvestris*, Mill. (*DC. l. c.*;—*G. Don. l. c.*;—*E. B.* 15, *t.* 1032;—*Jacq. fl. austr. t.* 402.—D. vulgaris, *Gmel.*—D. fullonum, *Thor.*;—not Mill.) ♂. Europe. Siberia. Flower-heads very large, florets small, bluish-purple. Introduced in 1841.
2. *inermis*, Wall. (*DC. pr.* 4, 646.) Nepal, 1818.

SCABIOSA, L. (*DC. pr.* 4, *p.* 654;—*G. Don's Mill. dict.* 3, *p.* 689.)

1. *stellata*, L. (*DC. o. c. p.* 655;—*G. Don. o. c. p.* 690;—Scabiosa rotata, *Bieb.*—Succisa stellata, *Mönch.*—Asterocephalus rotatus, *Spreng.*) ⊙ Fields along the Mediterranean. Flower-heads middle-sized, florets, whitish-bluish, small, C. S.; fr. April.
2. *atropurpurea*, L. (*DC. pr.* 4, *p.* 657;—*G. Don's Mill. dict.* 3, *p.* 691;—*B. M.* 7, *t.* 247;—*J. Grah. Cat. B. pl. p.* 94.—Succisa atropurpurea, *Mönch.*—Sclerostemma atropurpureum, *Schott.*—Asterocephalus atropurpureus, *Spreng.*) ⊙ Native country unknown. Cultivated in gardens. Flower-heads large; florets smallish, dark purple, Feb. and March; fr. H. S.

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* *Morina persica*, L. ♃. Persia. Syria. Asia Minor.—*Dipsacus fullonum*, L.; E. B. 29, t. 2080. ♂. England. S. Europe.—*D. pilosus*, L.; E. B. 13. *t.* 877. ♂. Europe.—*D. asper*, Wall. Khassya Mountains.—*Cephalaria transylvanica*, Schrad. ⊙ S. Europe.—*Knautia orientalis*, L. ⊙ Levant.—*K. hybrida*, Coult. ⊙ S. Europe.—*K. arvensis*, Coult. (Scabiosa arvensis, L.; E. B. 10, t. 659.) ♃. Meadows of Europe.—*Pterocephalus papposus*, Coult. ⊙ Portugal. Spain. Greece.—*P. plumosus*, Coult. ⊙ Levant.—*P. lusitanicus*, DC. ♃. Portugal.—*Scabiosa micrantha*, Desf. ⊙ Tauria. Armenia.—*S. maritima*, L. ⊙ ♂. S. France.—*S. Columbaria*, L.; E. B. 19, t. 1311. ♃. Europe.—*S. succisa*, L.; E. B. 13, t. 878. ♃. Europe.

ORDER CLXXXVIII.—VALERIANACEÆ, Lindl. Nat. Syst. p. 265.

THE VALERIAN TRIBE.

Herbs, by DC. pr. referred to 11 genera. Of these according to the same author, 53 species belong to S. America, Mexico, and the W. Indies; 41 to Europe; 6 to N. America; 6 to Iberia, Dahuria, Tauria, and Caucasus; 3 to the Levant; 3 to Siberia; 2 to the Straits of Magellan; 1 to Falkland Islands; 1 to N. Africa; 1 to S. Africa; and 1 to Japan. In the E. Indies, according to DC. and Royl. ill. have been discovered 16 species; viz. 2 of *Nardostachys*; 13 of *Valeriana*; and 1 of *Triplostegia*;—of which

3 are from the Mountains of the Peninsula of India, and the rest from the Himalayas and Khassya Mountains.

The roots of several species of Valeriana (officinalis, celtica, Phu, &c.) have a bitter taste and an offensive penetrating smell. They (specially V. officinalis, L.) increase in a high degree the action of several organs, and are upon the whole a very powerful remedy against nervousness, spasms and worms. "The young leaves of the species of Valerianella are eaten as salad under the French name of Mâche, or the English one of Lamb's Lettuce. Red Valerian is also eaten in the same way in Sicily." (*Lindl.*)

NARDOSTACHYS, DC. (*pr.* 4, *p.* 624.—*G. Don's Mill. dict.* 3, *p.* 666.)

1. *Jatamansi*, DC. (*l. c.*;—*G. Don. o. c. p.* 667;—*Royl. ill. t.* 54.—Valeriana Jatamansi, *W. Jones*;—*Roxb. fl. ind.* 1. *p.* 163; *ed. Carey*, 1, *p.* 166.—V. Spica, *Vahl.*—Patrinia Jatamansi, *D. Don. pr. fl. nep. p.* 150.—Nardus, *Garc. ab. hort. arom. p.* 133, *ic. rad.*—N. indica, *C. Bauh.*—Nardostachyon, Nardus Gangitis, Nardus syriaca of the ancients.) *Jatamangsi* of the Natives of India. ♃. Nepal. (Gossainthan.) Fl. small pale rose-coloured.—Was introduced into H. C. G. in 1796, but had not fl. up to 1814.—This plant, the true Spikenard of the ancients, is highly esteemed in India, not only on account of its scent, but as a remedy in hysteria and epilepsy.

VALERIANELLA, Mönch. (*DC. pr.* 4, *p.* 625;—*G. Don's Mill. dict.* 3, *p.* 667.)

1. *olitoria*, Mönch. (*DC. l. c.*;—*G. Don. l. c.*—Valeriana olitoria, *Willd.*;—Valeriana Locusta, *L.*;—*E. B.* 12, *t.* 811.—Fedia olitoria, *Vahl.*; not Gärtn.—F. Locusta, *Reichb.*—Lactuca agnina, *Ger.*) *Corn Sallad. Lamb's Lettuce.* ☉ Cornfields of Europe. Fl. minute, pale blue, or flesh-coloured, Feb.; fr. March.
2. *uncinata*, Dufr. (*DC. pr.* 4, *p.* 626;—*G. Don's Mill. dict.* 3, *p.* 668.—Fedia uncinata, *Stev.*; *Bieb.*; *Reichb.*—Valeriana pubescens, *Hopp.*) ☉ Dry, mountainous places of Tauria and E. Caucasus, and at the Bosphorus.—Fl. small, lilac, Feb.
3. *coronata*, DC. (*pr.* 4, *p.* 628;—*G. Don's Mill. dict.* 3, *p.* 670.—Fedia sicula, *Guss.*—F. coronata, *Reichb.*) ☉ Region of the Mediterranean. Fl. small, rose-coloured, Feb. and March; fr. April.

FEDIA, Mönch. (*DC. pr.* 4, *p.* 630;—*G. Don's Mill. dict.* 3, *p.* 671.)

1. *Cornucopiæ*, Gärtn. (*fr.* 2, *p.* 37, *t.* 86, *f.* 3;—*DC. l. c.*;—*G. Don. l. c.*—Valeriana Cornucopiæ, *L.*;—*Sibth. and Sm. fl. gr. t.* 32.—V. Locusta, *Ucria*; not L.) ☉ Corn-fields and waste places in S. Europe. Levant, N. Africa, &c. Fl. small, red, Feb. and March; fr. April.

CENTRANTHUS, DC. (*pr.* 4, *p.* 631;—*G. Don's Mill. dict.* 3, *p.* 672)

1. *ruber*, DC. (*l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 93.—C. maritimus, *Gray.*—C. latifolius, *Dufr.*; *H. B. and Kth.*—Valeriana rubra, *All.*—V. rubra, *a. L.*;—*E. B.* 22, *t.* 1531.) ♃. S. Europe,

Levant. N. Africa. Mount Vesuvius. Now cultivated in gardens, even about Quito. Fl. smallish, rose-coloured, C. S.

2. *Calcitrapa*, Dufr. (*DC. pr.* 4, *p.* 632;—*G. Don's Mill. dict.* 3, *p.* 672.—Valeriana Calcitrapa, *L.*;—*Sibth. and Sm. fl. gr. t.* 30.—V. annua, *Gray.*) ⊙ S. Europe, along the Mediterranean. Temperate France, as far as Nantes. Fl. smallish, white, tinged with red, Feb. and March; fr. April.

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* *Valerianella Morisonii*, DC. (Fedia dentata, Bieb.;—E. B. 20, t. 1370.) ⊙ Europe. Tauria.—*V. Auricula*, DC. ⊙ S. Europe.—*V. dentata*, DC. ⊙ Europe.—*Astrephia chærophylloïdes*, DC. ⊙ Lima.—*Plectritis congesta*, DC. (Valerianella congesta, Lindl.;—B. Reg. 13, t. 1095.) ⊙ N. W. America.—*Valeriana scandens*, L. ♃. Brazil, St. Domingo.—*V. dioïca*, L.; E. B. 9, t. 628. ♃. Swampy places of Europe and Levant.—*V. mexicana*, DC. ♃. Mexico.—*V. officinalis*, L.; E. B. 10, t. 698. ♃. Humid places of Europe.

ORDER CLXXXIX.—BRUNONIACEÆ, Lindl. Nat. Syst. p. 266.

Herbs, referred by Lindl. to one genus, with 2 species, both natives of N. Holland. Properties unknown.

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* *Brunonia sericea*, Sm. ♃. Tropical New Holland.

ORDER CXC.—PLANTAGINACEÆ, Lindl. Nat. Syst. p. 267.

THE RIB GRASS TRIBE.

Herbs, by Lindl. referred to 2 genera. Of these, 38 species have, according to Spreng. syst. been discovered in Europe; 20 in S. America, and Mexico; 7 in N. America; 6 in N. Africa; 5 in S. Africa; 4 in Siberia; 4 in N. Holland and the South Sea Islands; 3 in Caucasus and Tauria; 3 in the Canaries; 2 in the Levant; 1 in Patagonia; 1 in Terra del Fuego; and 1 in the Straits of Magellan. About 5 species have been found in the Himalayas, Khassya Mountains, Neelgherries, Philippines, and Cochin China; all belonging to *Plantago*. Properties slightly bitter and astringent; the seeds covered with mucus.

PLANTAGO, L. (*Spreng. syst.* 1, *p.* 369, *No* 456;—*R. Br. pr. fl. Nov. Holl.* 1, *p.* 280.) *Plantain.*

1. *major*, L. (*Spreng. syst.* 1, *p.* 433;—*E. B.* 22, *t.* 1558.—*Roxb. H. B. p.* 10.) ♃. Europe. Fl. small, white, R. S.; fr. C. S.

2. *asiática*, L. (P. erosa, *Wall. Roxb. fl. ind.; ed. Carey*, 1, *p.* 423.) ♃. Khassya Mountains. Nepal. Fl. small, whitish, and fr. C. S.
3. *media*, L. (*Spreng. syst.* 1, *p.* 434;—*E. B.* 22, *t.* 1559.) ♃. Fl. minute, whitish, with a tinge of red, C. S.
4. *virginica*, L. (*Spreng. syst.* 1, *p.* 434;—*Moris. hist.* 3, *s.* 8, *t.* 15, *f.* 8;—*Roxb. H. B. p.* 10.) ☉ Virginia. Fl. small, greenish-white, R. S.
5. *lanceolata*, L. (*Spreng. syst.* 1, *p.* 434;—*E. B.* 8. *t.* 507;—*Roxb. H. B. p.* 10. ♃. Europe. Himalayas.) Fl. small, pale reddish-greenish, R. S.; fr. C. S.
6. *Lagopus*, L. (*Spreng. syst.* 1, *p.* 435;—*Moris. hist.* 3. *s.* 8, *t.* 16, *f.* 13.—*Roxb. H. B. p.* 10.) ☉ S. France. Spain. Fl. greenish-white, Feb.; fr. H. S.
7. *maritima*, L. (*Spreng. syst.* 1, *p.* 436;—*E. B.* 3, *t.* 175.) ♃. Sea coasts of Europe. Fl. small, greenish-red, C. S.
8. *Coronopus*, L. (*Spreng. syst.* 1, *p.* 439;—*E. B.* 13, *t.* 892.) ☉ Europe. Barbary. Fl. minute, whitish-green, R. S.; fr. C. S.
9. *amplexicaulis*, Cav. (*Spreng. syst.* 1, *p.* 439;—*Cav. ic. t.* 25.) ☉ Spain, Fl. small, greenish-white, March; fr. April.
10. *vaginata*, Vent. (*Spreng. syst.* 1, *p.* 439;—*Vent. jard. de Cels. t.* 29.) ♃. N. Africa. Fl. small, greenish-white, R. S.; fr. C. S.
11. *Cynops*, L. (*Spreng. syst.* 1, *p.* 440;—*Moris. hist.* 3, *s.* 8, *t.* 17, *f.* 1.;—*Roxb. H. B. p.* 10.) ♄ S. Europe. Siberia. Fl. small, greenish-white, C. S.; fr. January.
12. *Psyllium*, L. (*Spreng. syst.* 1, *p.* 440.) ☉ S. Europe. Fl. small, greenish-white, Feb.; fr. April.
13. *stricta*, Schousb. (*Moroc.* 1, *p.* 69, *ic.* 145;—*Spreng. syst.* 1, *p.* 440;—*Roxb. H. B. p.* 11.) ☉ Mogadore. Fl. small, greenish-white, C. S.; fr. Feb. and March.
14. *Ispaghula*, Roxb. (*fl. ind.* 1, *p.* 404; *ed. Carey* 1, *p.* 421;—*Spreng. syst.* 1, *p.* 440.) ইসফগুল *Issufgool.* ☉ Persia. Cultivated in India. Fl. small, whitish, and fr. C. S. *Seeds* of a very cooling nature, and, like those of Plantago Psyllium, L., forming with boiling water, a rich mucilage, which is much used in India in catarrh, blennorrhoea, and affections of the kidnies. They are also deservedly recommended in chronic diarrhoea, two tea-spoonsful of them being given twice a day with a little powdered sugar-candy. (*Ainslie. Twining*).
15. *pumila*, L. (*Spreng. syst.* 1, p. 440.—P. exigua, *Murr. comm. gött.* 1778, *p.* 94, *t.* 5.) ☉ S. Europe. Fl. small, whitish, C. S.; fr. March.

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* *Plantago mexicana*, Lk. ♃. Mexico.—*P. brasiliensis*, Sims.; B. M. 53, t. 2616. ♃. Brazil.—*P. Serraria*, L. ♃. Barbary.—*P. Gouani*, Gmel. ♃. S. Europe.

ORDER CXCI.—GLOBULARIACEÆ, Lindl. Nat. Syst. p. 268.

Shrubs, undershrubs, or perennial herbs, constituting but one genus. Of these, Spreng. syst. assigns 9 species to Europe; 1 to Asia Minor; and 1 to the E. Indies. With the latter, (*Globularia bisnagarica, L.*; according to Spreng.) we are not acquainted. "Properties, bitter, tonic, and purgative." (*Lindl.*)

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* *Globularia vulgaris*, L. ♃. B. M. 48, t. 2256. S. Europe.—*G. bellidifolia*. Ten. ♃. Italy.

ORDER CXCII.—SALVADORACEÆ, Lindl. Nat. Syst. p. 269.

Shrubs, or small trees, of one genus, and 3 species; one from Arabia, Persia, and the Peninsula of India; and two from Cochin China, according to Lour. "Fruit eatable." (*Lindl.*)

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* *Salvadora persica*, L. Roxb. Corom. 1, t. 26. 5 Circars, near the sea. Both Concans.

ORDER CXCIII.—PLUMBAGINACEÆ, Lindl. Nat. Syst. p. 269.

THE LEADWORT TRIBE.

Herbs, undershrubs, or shrubs, by Lindl. referred to 6 genera. Of these, Spreng. syst. enumerates 36 species for Europe; 10 for S. Africa; 7 for N. Africa; 7 for Siberia; 7 for Tauria and Caucasus; 5 for S. America; 3 for the Canaries; 2 for the Levant; 2 for New Holland; and 1 for Arabia. In the E. Indies have been found 3 species of *Plumbago;* (Ceylon, Moluccas, both Peninsulas of India, Bengal;) and 1 of *Ægialitis*, (Soonderbuns, Amherst.)

"This order contains plants of very opposite qualities; part are tonic and astringent, and part acrid and caustic in the highest degree." (*Lindl.*)

PLUMBAGO, L. (*Spreng. syst.* 1, *p.* 501, *No.* 573;—*R. Br. pr. fl. Nov. Holl.* 1, *p.* 425.)

1. *zeylanica*, L. (*Spreng. syst.* 1, *p.* 537;—*R. Br. o. c. p.* 426;—*Roxb. fl. ind.* 1, *p.* 463; *ed. Carey*, 2, *p.* 38;—*J. Grvh. Cat. B. pl. p.* 166;—*Rheed.* 10, *t.* 8.) চিতা *Chita.* ♄ Ceylon. Segaen. Prome. Penang. Rangoon. Courtallum. Malabar hill, Bombay. Hills throughout the Concans. Guzerat. Bengal, (Serampore.) Kutmandu. New Holland. Fl. middle-sized, pure white, R. and C. S.; fr. H. S. The fresh bruised bark of the root is sometimes applied for raising blisters. (*Ainslie.*)

2. *rosea*, L. (*Spreng. syst.* 1, *p.* 537;—*B. M.* 7, *t.* 230;—*Roxb. fl. ind.* 1, *p.* 463; *ed. Carey*, 2, *p.* 38;—*J. Grah. Cat. B. pl. p.* 166;—*Rheed.* 12, *t.* 9;—*Rumph.* 5, *t.* 168.) রক্ত চিতা *Rukto-chita.* ♄ Moluccas. Both Peninsulas of India, Common in gardens. Fl. middle-sized, bright red, R. and C. S.; fr. H. S.
3. *capensis*, Thunb. (*Spreng. syst.* 1, *p.* 537;—*B. Reg.* 5, *t.* 417;—*B. M.* 47, *t.* 2110;—*J. Grah. Cat. B. pl. p.* 166.) ♄ C. G. H. Fl. large, pale blue, more or less the whole year; fr. 0.

ÆGIALITIS, R. Br. (*pr. fl. Nov. Holl.* 1, *p.* 426.)

1. *rotundifolia*, Roxb. (*fl. ind.* 2, *p.* 111.) S. ♄ Soonderbuns. Amherst. Fl. largish, pale yellow. Introduced in 1840. Has not fl.

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* *Plumbago scandens*, L. ♄ ◡ New Granada.—*P. europæa*, L.; B. M. 47, t. 2139. ♄ S. Europe.—*P. occidentalis*, Scop. ♄ ◡ W. Indies.—*P. mexicana*, Lk. and Otto. ♄ Mexico.—*P. rhomboidea*, Hook; B. M. 56, t. 2917. ⊙ S. America.—*Vogelia africana*, Lam. ♄ C. G. H.—*Ægialitis annulata*, R. Br. ♄ Tropical New Holland.

ORDER CXCIV.—HYDROPHYLLACEÆ, Lindl. Nat. Syst. p. 271.

THE WATERLEAF TRIBE.

Hispid herbs, by Lindl. referred to 6 genera. Of these, according to Spreng. syst. B. M. and B. Reg. 18 species belong to N. America; 1 to Peru; and 1 to Patagonia. Properties unknown.

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* *Ellisia Nyctelea*, L. ⊙ Virginia.—*Eutoca Franklinii*, R. Br.; B. M. 57, t. 2985. ⊙ Banks of the Mississippi.—*E. Menziezii*, R. Br.; B. M. 66, t. 3762. ⊙ California.—*E. viscosa*, Benth.; B. Reg. 21, t. 1808. ⊙ California.—*E. divaricata*, Benth.; B. Reg. 21, t. 1784. ⊙ California.—*Nemophila phacelioïdes*, Bartl.; B. M. 50, t. 2373. ♂ N. America.—*N. aurita*, Lindl.; B. Reg. 19, t. 1601. ⊙ California.—*N. insignis*, Benth.; B. Reg. 20, t. 1713. ⊙ California.—*N. atomaria*, Fisch.; B. Reg. 23, t. 1940. ⊙ California.—*Phacelia congesta*, Hook; B. M. 62, t. 3452. ⊙ Texas.—*P. tanacetifolia*, Benth.; B. Reg. 20, t. 1696. ⊙ N. America.

ORDER CXCV.—CORDIACEÆ, Link.—Lindl. Nat. Syst. p. 272.

Trees or shrubs, sometimes climbing, by Lindl. referred to 4 genera. Of these Spreng. syst. enumerates 61 species for S. America, Mexico, and the

W. Indies; 2 for New Holland; 1 for Patagonia; 1 for China; and 1 for Senegal. In the E. Indies have been discovered, according to Spreng. syst. Wall. Cat. and Royl. ill. 25 species; viz. 14 or 15 of *Cordia;* 1 of *Cordiopsis;* and 9 of *Erycibe;*—all natives of the Himalayas, the Khassya Mountains, both Peninsulas of India, and the Moluccas. Properties under the species.

CORDIA, L. (*R. Br. pr. fl. Nov. Holl.* 1, *p.* 498;—*G. Don's Mill. dict.* 4, *p.* 374.)

1. *orientalis*, R. Br. (*pr. l. c.* (1810.)—C. campanulata, *Roxb. H. B. p.* 17; *fl. ind.* 1, *p.* 593; *ed. Carey*, 2, *p.* 336;—*Rumph.* 2, *t.* 75.) ♄ Moluccas. Tropical New Holland. Fl. largish, reddish-orange. Introduced into H. C. G. in 1839, but had not fl. up to 1814.—R. Brown's specific character of this tree is "(calyx 5-raro 4-dentatus) foliis ovatis, subacuminatis, lævibus, integris; calycibus glabris, exsulcis; drupâ inclusâ." As *he* quotes as a synonym Rumph. 2, t. 75, with an! there can be no doubt of the correctness of the quotations, although the panicles in the plate quoted, and according to Roxb., are lateral, not terminal.—The calyx in Rumphius's plate is more than 3 dentate, and, adds R. Br., glabrous. His C. orientalis, and Rumph. 2, t. 75, can, therefore, be referred neither to C. Rumphii, Bl., nor to C. subcordata, Lam., the calyx being, in the former tomentose within, and, in both, 3-dentate, not to speak of the pubescence of the leaves underneath.—G. Don's C. subcordata, in Mill. dict. 4, p. 375, is a compound of Lamark's name, and Roxburgh's character of C. campanulata.
2. *Sebestena*, L. (*G. Don's Mill. dict.* 4, *p.* 375;—*Jacq. amer.* 42, *ed.* 2, *t.* 44;—*B. Repos.* 2, *t.* 157;—*B. M.* 21, *t.* 794;—*Lam. ill. t.* 96, *f.* 1;—*Roxb. fl. ind.* 1, *p.* 593; *ed. Carey*, 2, *p.* 336, under C. campanulata.) ♄ W. Indies. Fl. large, orange scarlet, R. S.; fr. 0. A small piece of the wood of this species put on a pan of lighted coals will perfume the whole house with a most agreeable smell. (*G. Don. l. c.*)
3. *latifolia*, Roxb. (*fl. ind.* 1, *p.* 589; *ed. Carey*, 2, *p.* 330;—*G. Don's Mill. dict.* 4, *p.* 378; not Wall. ibid. p. 375;—*J. Grah. Cat. B. pl. p.* 136.) বড় বহুয়ারি *Buro-buhooari.* ♄ Hindoosthan. Silhet. Common throughout Guzerat. Fl. small, white, C. S.; fr. June and July. The fruit, (*Larger Sepistens, or Sebestens*, Roxb. Colebr.) while young and tender, is pickled, and is also eaten as a vegetable by the natives. (*Vaupell.*)
4. *Myxa*, L. (*G. Don's Mill. dict.* 4, *p.* 379;—*Roxb. fl. ind.* 1, *p.* 590; *ed. Carey*, 2, *p.* 332;—*J. Grah. Cat. B. pl. p.* 136;—*Delile. fl. ægypt. p.* 47, *t.* 19, *f.* 1, 2.—Cordia officinalis, or Sebestena domestica, *Lam. ill. t.* 96, *f.* 2.—C. domestica, *Roth.*—Sebestena officinalis, *Gärtn. fr.* 1, *p.* 364, *t.* 76, *f.* 1.—S. domestica, *Prosp. Alp. ægypt. p.* 30; *Bauh. hist.* 1, *p.* 198.—S. domestica, or Myxa, *Commel. hort. amst.* 1, *t.* 72.—Prunus Sebestena, &c. *Pluk. alm. t.* 217, *f.* 3.—Cornus sanguinea,

Forsk.; not L.—*Rheed.* 4, *t.* 37.) বহুয়ারি *Buhooari.* ♄ Both Peninsulas of India. Bengal. Hindoosthan. Nepal. Egypt. Fl. small, white, C. S.; fr. May and June. *Wood* soft, and of little use except for fuel, and kindling fire by friction. Fruit (*Smaller Sepistens or Sebestans,* Roxb. Colebr.) eaten by the natives pickled or raw. Smell of the *nut,* when cut, heavy and disagreeable. *Kernels* tasting like fresh filberts. (*Roxb.*) The tree abounds in a transparent, glutinous juice. (*J. Garh. l. c.*)

5. *polygama,* Roxb. (*fl. ind.* 1, *p.* 594; *ed. Carey,* 2, *p.* 337;—*G. Don's Mill. dict.* 4, *p.* 379.) ♄ Mountains of Coromandel. Fl. small, white, May; fr. August.
6. *monoica,* Roxb. (*Corom.* 1, *t.* 58; *fl. ind.* 1, *p.* 592; *ed. Carey,* 2, *p.* 334;—*G. Don's Mill. dict.* 4, *p.* 379;—*J. Grah. Cat. B. pl. p.* 136.) ♄ Circars. Fl. small, white. In H. C. G. fl. R. S. (*Roxb.*)
7. *prionodes,* (C. serrata, *Roxb. fl. ind.* 1, *p.* 591; *ed. Carey,* 2, *p.* 333; —*G. Don's Mill. dict.* 4, *p.* 379; not Juss.) ♄ Travancore. Fl. middle-sized, white. In H. C. G. fl. August.
8. *grandis,* Roxb. (*fl. ind.* 1, *p.* 593; *ed. Carey,* 2, *p.* 335;—*Wight. icon.* 2, *t.* 469;—*G. Don's Mill. dict.* 4, *p.* 379; not Cham. and Schlecht.) L. ♄ Chittagong. Fl. small, white, fragrant, Oct. and Nov.
9. *angustifolia,* Roxb. (*H. B. p.* 17; *fl. ind.* 1, *p.* 595; *ed. Carey,* 2, *p.* 337;—*G. Don's Mill. dict.* 4, *p.* 379;—*J. Grah. Cat. B. pl. p.* 136; not Röm. and Sch.;—*G. Don. o. c. p.* 386.—C. reticulata, Roth.; not Vahl.) ♄ Mysore. Bombay. Guzerat. Deccan. Hurdwar. Fl. small, white, May.
10. *Gerascanthus,* Jacq. (*Amer. p.* 43, *t.* 175, *f.* 16.) W. Indies, Mexico.
11. *tectonæfolia,* Wall. (C. domestica, *Bojer.* not Roth.) Egypt. *Teek d'Arabie.*

Erycibe, Roxb. (*G. Don's Mill. dict.* 4, *p.* 392.)

1. *paniculata,* Roxb. (*Corom.* 2, *t.* 159;—*fl. ind.* 1, *p.* 585; *ed. Carey,* 2, *p.* 284;—*G. Don. l. c.;*—*J. Grah. Cat. B. pl. p.* 137.—E. Rheedei, *Bl.;*—*G. Don. l. c.*—Erimatalia Rheedei, *Röm. and Sch.*—*Rheed.* 7, *t.* 39.) L. ♄ ◡ Java. Circars. The Concans. Monghir. Khassya Mountains. Fl. smallish, straw-coloured, delightfully fragrant, April and May.

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* *Cordia Dillenii,* Spreng. ♄ Bahama Islands.—*C. lævis,* Jacq. ♄ Caraccas.—*C. Collococca,* L. ♄ Jamaica.—*C. tetraphylla,* Aubl. ♄ Guiana.—*C. nodosa,* Lam. ♄ Guiana.—*C. elliptica,* Swz. ♄ Jamaica.—*C. macrophylla,* L. ♄ W. Indies.—*C. domingensis,* Lam. ♄ St. Domingo. —*C. incana,* Royle. Deyra-Dhoon.—*C. dentata,* Vahl. ♄ Mexico.—*C. alba,* Röm. and Sch. ♄ Curaçao.—*C. guazumæfolia,* Röm. and Sch. ♄ Brazil.—*C. globosa,* Röm. and Sch. ♄ W. Indies.

ORDER CXCVI.—BORAGINACEÆ, Lindl. Nat. Syst. p. 272.

THE BORAGE TRIBE.

Herbaceous plants, seldomer shrubs or trees, by Lindl. including his Ehretiaceæ, referred to 49 genera. Of these Spreng. syst. enumerates about 120 for S. America, Mexico and the W. Indies; 114 for Europe; for N. Africa 35; for Dahuria, Iberia, Tauria and the Caucasus 26; for the Levant 24; for New Holland and the South Sea Islands 24; for Siberia 22; for N. America 20; for the Canaries and Madeira 14; for the Mascarenhas Islands 5; for Persia 5; for Arabia 2; for Guinea 1; for China 1, and for Japan 1. In S. Africa have been discovered 60 species, (*Harvey,*) and in the E. Indies, according to Spreng. syst., Wall. Cat., Royl. ill. and B. Reg. 99; viz. 1 of *Coldenia;* 2 of *Tiaridium;* 14 of *Heliotropium;* 4 of *Lithospermum;* 5 of *Echinospermum;* 1 of *Messerschmidia;* 1 of *Echium;* 7 of *Onosma;* 1 of *Anchusa;* 15 of *Myosotis;* 17 of *Cynoglossum;* 5 of *Trichodesma;* 7 of *Tournefortia,* and 19 of *Ehretia.* The principal stations of these are Cashmere, the Himalayas, Kunawur, the Khassya Mountains, both Peninsulas of India and Bengal. A few are from Ceylon, Java and the Philippines.

"Soft, mucilaginous, emollient properties are the usual characteristics of this order. Some are also said to contain nitre, a proof of which is shewn by their frequent decrepitation when thrown on the fire." (*Lindl.*)

A. BORAGEÆ, Benth.
(*In Royle's ill. p.* 305.)

BORAGO, Tournef. (*G. Don's Mill. dict.* 4, *p.* 309.)

1. *officinalis,* L. (*G. Don. l. c.;—E. B.* 1, *t.* 36.) *Common Borage.* ♂ Said to be a native of the Levant, but now naturalized in most parts of Europe, growing on dung-hills and heaps of rubbish. Fl. largish, pale-blue, or purple, C. S.

CERINTHE, Tournef. (*G. Don's Mill. dict.* 4, *p.* 320.)

1. *major,* L. (*G. Don. l. c.;—B. M.* 10, *t.* 333.—C. glabra, *Mill. fig. t.* 91.—C. glauca, *Mönch.*) ⊙ S. Europe. N. Africa. Fl. middle-sized, yellow-orange at bottom, deep-purple and pale-yellow at top, Feb. and March.

LITHOSPERMUM, Tournef. (*G. Don's Mill. dict.* 4, *p.* 321.)

1. *arvense,* L. (*G. Don. o. c. p.* 323;—*E. B.* 2, *t.* 123.) ⊙ Europe. Asia. Africa. N. America. Fl. small, white, Feb. and March; fr. H. S.
2. *tenuiflorum,* L. (*G. Don. o. c. p.* 324;—*Jacq. icon. rar.* 2, *t.* 313;—*Sibth. and Sm. fl. græc. t.* 159.—Buglossoïdes rumosissima, *Mönch.*) ⊙ Egypt. Island of Cyprus. Fl. smallish, whitish, March; fr. H. S.

ECHIUM, Pliny. Tournef. (*G. Don's Mill. dict.* 4, *p.* 327.)

1. *vulgare,* L. (*G. Don. o. c. p.* 332;—*E. B.* 3, *t.* 181;—*Roxb. H. B. p.* 13.) ♂ Europe. N. America. Fl. largish, pale blue, C. S.

2. *violaceum*, L. (*G. Don. l. c.;—J. Grah. Cat. B. pl. p.* 134.—E. creticum, *Lam.*; not L.) ⊙ S. Europe. Fl. large, violet or pale-blue, Feb. and March; fr. H. S.
3. *plantagineum*, L. (*G. Don. o. c. p.* 333;—*Sibth. and Sm. fl. græc. t.* 179;—*Jacq. hort. vind.* 1, *t.* 45.—E. plantaginoïdes, *Röm. and Sch.*) ⊙ S. Europe. Fl. large, purplish violet, Feb. and March; fr. H. S.

Lycopsis, L. (*G. Don's Mill. dict.* 4, *p.* 338.)

1. *arvensis*, L. (*G. Don. l. c.;—Curt. fl. lond. t.* 336;—*E. B.* 14, *t.* 938.—Anchusa arvensis, *Hoffm. and Lk.*) ⊙ Europe. N. America. Fl. small, blue or rose-coloured, March; fr. H. S.

Anchusa, L. (*G. Don's Mill. dict.* 4, *p.* 339.)

1. *paniculata*, Ait. (*G. Don. o. c. p.* 340;—*Sibth. and Sm. fl. græc. t.* 163—A. italica, *Retz.;—Roxb, H. B. p.* 13.—A. officinalis, *Gouan;—Brot.;—Desf.;—Sav.;—Jaume St. Hil.;* not L.—Buglossum officinale, *Lam.*—B. elatum, *Mönch.*—B. angustifolium, *All.*—B. amoenum, *Gärtn. fr.* 1, *p.* 323, *t.* 67, *f.* 2.) ♃. S. Europe. N. Africa. Madeira. Siberia. Introduced into H. C. G. in 1807, but had not fl. up to 1814.
2. *undulata*, L. (*G. Don. o. c. p.* 342;—*B. M.* 47, *t.* 2219;—*Sibth. and Sm. fl. græc. t.* 165.) ♃. S. Europe. N. Africa. Has been introduced into H. C. G. Fl.?
3. *officinalis*, L. (*G. Don. l. c.;—E. B.* 10, *t.* 662.) ♃. Europe. Asia. Africa. Has been cultivated in the garden here for more than fourteen years, without flowering.

Myosotis, L. (*G. Don's Mill. dict.* 4, *p.* 343.)

1. *arvensis*, Sibth. (*G. Don. o. c. p.* 345;—*E. B.* 36, *t.* 2558.—M. annua, *Mönch.*—M. scorpioïdes, *Desf.*—M. scorpioïdes, *a.* arvensis, *L.*—Echioïdes annua, *Mönch.*) ⊙ Europe. Asia. Africa. N. America. Fl. small, pale blue, Feb. and March; fr. H. S.

B. Cynoglossëæ, Benth.

(*In Royle's ill. p.* 305.)

Cynoglossum, Tournef. (*G. Don's Mill. dict.* 4, *p.* 352.)

1. *diffusum*, Roxb. (*fl. ind.* 1, *p.* 457; *ed. Carey*, 2, *p.* 7;—*G. Don. o. c. p.* 353.) ⊙ Bengal, (Serampore.) Fl. small, white, R. and C. S.; fr. March.
2. *furcatum*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 6;—*G. Don. l. c.;—Royl. ill. p.* 306.) ♃. Mussoorie. Saharunpore. Kheree. Nepal. Fl. small, blue. In H. C. G. fl. R. S. (*Wall.*)
3. *marifolium*, Roxb. (*fl. ind.* 1, *p.* 457; *ed. Carey*, 2, *p.* 8;—*G. Don. l. c.*) ⊙ Chittagong. Fl. very small, pale whitish-blue, C. S.
4. *canescens*, Willd. (*G. Don. o. c. p.* 354.—C. micranthum, *Desf.*—C. hirsutum, *Jacq. hort. schonbr.* 4, *t.* 489; not Thunb.;—C. racemosum, *Roxb. fl. ind.* 1, *p.* 456; *ed. Carey*, 2, *p.* 6.) ⊙ Bengal, (Seram-

pore.) Mussoorie. Saharunpore. Kandalla Ghaut. Various parts of the Concan. Fl. very small, white, with a purple throat, R. S. ; fr. C. S.

5. *Falconerianum*, Wall. Cashmere.

ASPERUGO, Tournef. (*G. Don's Mill. dict.* 4, *p.* 357.)

1. *procumbens*, L. (*G. Don. l. c.*;—*E. B.* 10, *t.* 661.—A. vulgaris, *Tournef.*) ⊙ Europe. Siberia. Fl. small, pale blue, Feb. and March; fr. C. S.

TRICHODESMA, R. Br. (*G. Don's Mill. dict.* 4, *p.* 311.)

1. *indicum*, R. Br. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 134.—Borago indica, *L.*;—*Roxb. fl. ind.* 1, *p.* 458 ; *ed. Carey*, 2, *p.* 8.—Borraginoïdes sagitata, *Mönch.*—Pollichia indica, *Med.*) ছোট কল্পা *Chhoto-Kulpa.* ⊙ Both Peninsulas of India. Bengal, (Serampore.) Hindoosthan. N. India. Mauritius. Fl. smallish, pale blue, and fr. nearly the whole year.

2. *zeylanicum*, R. Br. (*G. Don. l. c.*;—*J. Grah. l. c.*—Borago zeylanica, *L.*;—*Jacq. ic. rar.* 2, *t.* 314 ;—*Burm ind. t.* 14, *f.* 2.—*Roxb. fl. ind.* 1, *p.* 458 ; *ed. Carey*, 2, *p.* 10.) বড় কল্পা *Buro-Kulpa.* ⊙ Ceylon. Deccan. Bengal, (Serampore.) New Holland. Fl. middle-sized, pale blue, C. S. ; fr. H. S.

3. *spinulosum*, (Borago spinulosa, *Roxb. fl. ind.* 1, *p.* 459 ; *ed. Carey*, 2, *p.* 11.) ⊙ Bengal. Fl. C. S.

C. HELIOTROPEÆ, Benth.
(*In Royl. ill.* 305.)

HELIOTROPIUM, Tournef. (*G. Don's Mill. dict.* 4, *p.* 357.)

1. *peruvianum*, L. (*G. Don. l. c.*;—*B. M.* 4, *t.* 141 ;—*Roxb. H. B. p.* 13 ;—*J. Grah. Cat. B. pl. p.* 135.—H. odoratum, *Mönch.*) ♄ Peru. Fl. small, purple-lilac, with a green throat, smelling like Vanilla, C. S. ; fr. 0.

2. *curassavicum*, L. (*G. Don. o. c. p.* 358 ;—*Forsk. fl. arab. p.* 38 ;—*Swz.*;—*Desf.*;—*Ruiz. and Pav.*;—*B. M.* 53, *t.* 2669 ;—*Roxb. H. B. p.* 13.—H. glaucophyllum, *Mönch.*) ⊙ S. America. Sandwich Islands. N. America. Domesticated about Serampore. Fl. small, white, with a yellowish green bottom, R. S. ; fr. C. S.

3. *parviflorum*, L. (*G. Don. l. c.*—H. angiospermum, *Murr.*) ♄ W. Indies. Fl. minute, white, and fr. nearly the whole year.

4. *coromandelianum*, Retz. (*G. Don. o. c. p.* 359 ;—*Roxb. fl. ind.* 1, *p.* 454 ; *ed. Carey*, 2, *p.* 2 ;—*J. Grah. Cat. B. pl. p.* 135.) নাগ ফুলী *Naga-phoolee.* ⊙ Peninsula of India. Bengal, (Serampore,) Plains of North India. Fl. small, white, R. and C. S. ; fr. C. S.

5. *supinum*, L. (*Spec.* 187 ;—*Benth. in Royl. ill. p.* 306.—H. malabaricum, *Retz.*—H. europæum, *Forsk. descr. p.* 742, not L.—H. europæum, var. malabaricum, *Burm. ind. p.* 40, *t.* 16, *f.* 1.—H. humifusum, *Tournef.*—Piptoclaina malabarica, *G. Don's Mill. dict.* 4, *p.* 364 ;—*J. Grah. Cat. B. pl. p.* 135.—P. supina, *G. Don. l. c.*) ⊙ Portugal. S. France.

Islands of the Archipelago. Barbary. Arabia. C. G. H. The Deccan. Fl. small, white, with a yellow tube, Feb. and March; fr. H. S.

6. *brevifolium*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 2;—*G. Don. o. c. p.* 361.—H. compactum, *D. Don. pr. fl. nep. p.* 101.) ⊙ Banks of the Irrawaddi. Bengal, (Serampore.) Hindoosthan. Nepal. Fl. small, white, with a yellow tube, R. and C. S.; fr. C. S.

7. *Roxburghianum*, (H. Roxburghii, *Spreng. syst. c. p.* 54.—H. paniculatum, *Roxb. fl. ind.* 1, *p.* 455; *ed. Carey*, 2, *p.* 2; not R. Br.) Chittagong. Introduced into H. C. G. before 1814. It is not mentioned, whether the plant is an annual or perennial, or whether it flowered.

Tiaridium, Lehm. (*G. Don's Mill. dict.* 4, *p.* 364.)

1. *indicum*, Lehm. (*G. Don l. c.;—J. Grah. Cat. B. pl. p.* 135.—Heliotropium indicum, *L.;—B. M.* 43, *t.* 1837;—*Roxb. fl. ind.* 1, *p.* 454; *ed. Carey*, 2, *p.* 1.—H. cordifolium, *Mönch.—Rheed.* 10, *t.* 48.) হাতশুঁড়া *Hatsoora.* ⊙ Fl. small, lilac-bluish, R. S.; fr. C. S.

Coldenia, L. (*G. Don's Mill. dict.* 4, *p.* 365.)

1. *procumbens*, L. (*G. Don. l. c.;—Roxb. fl. ind.* 1, *p.* 448; *ed. Carey*, 2, *p.* 468;—*Lam. ill. t.* 89;—*J. Grah. Cat. B. pl. p.* 135.) ⊙ Ceylon. Peninsula of India. Bengal, (Serampore.) Monghir, &c. Fl. small, white, C. S.; fr. H. S.

Tournefortia, L. (*G. Don's Mill. dict.* 4, *p.* 365.)

1. *viridiflora*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 5, annot.—Lithospermum viridiflorum, *Roxb. fl. ind.* 1, *p.* 455; *ed. Carey*, 2, *p.* 4.—Heliotropium viridiflorum, *Lehm.;—G. Don's Mill. dict.* 4, *p.* 358.) ♄ Chittagong. Fl. small, green, C. S.

Ehretia, L, (*G. Don's Mill. dict.* 4, *p.* 388;—*R. Br. pr. fl. Nov. Holl.* 1, *p.* 467.)

1. *serrata*, Roxb. (*fl. ind.* 1, *p.* 596; *ed. Carey*, 2, *p.* 346;—*G. Don. l. c.;—B. Reg.* 13, *t.* 1096;—*Benth. in Royl. ill. p.* 306.—E. pyrifolia, *D. Don. pr. fl. nep. p.* 102;—*G. Don. l. c.*) ♄ Bengal. Hindoosthan. Chittagong. Khassya Mountains. Bhootan. Deyra-Dhoon. Kheree Pass. Fl. small, greenish-white, sweet scented, H. S.

2. *lævis*, Roxb. (*Corom.* 1, *t.* 56; *fl. ind.* 1, *p.* 597; *ed. Carey*, 2, *p.* 341; —*J. Grah. Cat. B. pl. p.* 136, excl. syn. Don.;—*Benth. in Royle's ill. p.* 306.—Beurreria lævis, *G. Don's Mill. dict.* 4, *p.* 390.) 5 Peninsula of India. Bengal, (Serampore.) Hindoosthan. Deyra-Dhoon. Kheree Pass. Fl. small, white, inodorous, Jan. and Feb.; fr. May and June. *Wood* used by the hill people for many purposes. (*Roxb.*) Has a 5-parted calyx, a bilocular 4-seeded berry, and inverse embryo, and is, therefore, like the next species, no genuine Ehretia. (*R. Br.*)

3. *aspera*, Roxb. (*Corom.* 1, *t.* 55; *fl. ind* 1, *p.* 598; *ed. Carey*, 2, *p.* 342.—E. tomentosa, *Roth.;* not Lam. nor H. B. and Kth.—E. Heynii, *Röm. and Sch.*—Beurreria aspera, *G. Don's Mill. dict.* 4, *p.* 390.) ♄ Coromandel. Fl. very small, white, R. S.; fr. 0.

? 4. *internodis*, L'Herit. (*Stirp.* 1, *p.* 47, *t.* 24;—*G. Don's Mill. dict.* 4, *p.* 388.)

β. *Subria.* (*Commers. Hb.* according to Lam.—E. internodis, *Roxb. fl. ind.* 1, *p.* 599; *ed. Carey*, 2, *p.* 343.) ♄ Mauritius. Was introduced into H. C. G. in 1811, but had not fl. up to 1814.

5. *buxifolia*, Roxb. (*Corom.* 1, *t.* 57; *fl. ind.* 1, *p.* 598; *ed. Carey*, 2, *p.* 343.—Cordia retusa, *Vahl. symb.* 2, *p.* 42.) ♄ Coromandel. Fl. small, white, C. S.—No genuine Ehretia, having a lateral inflorescence, a two-parted style, and the putamen of a berried drupe, consisting of two closely cohering nuts, and besides eight empty cells, quadrilocular. (*R. Br.*)

6. *graveolens*, Wall. Khassya Hills.

Trichodesma, R. Br.

1. *perfoliatum*, Wall. Banks of the Irawaddi.

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* *Trichodesma africanum*, R. Br. ⊙ C. G. H.—*Colsmannia flava*, Lehm. ♃. Levant.—*Onosma strigosum*, H. B. and Kth. ♃. Meadows of Mexico.—*Cerinthe aspera*, Roth. ⊙ S. Europe.—*C. minor*, L. ♂ S. Europe.—*Lithospermun apulum*, Vahl. ⊙ S. Europe, &c.—*L. villosum*, Wall. Cat. ♃. Hurdwar.—*Macromeria longiflora*, D. Don. ♃. Mexico.—*M. exserta*, D. Don. ♃. Mexico.—*Echium rubrum*, Jacq. ♂ B. M. 43, t. 1826. Hungary, &c.—*E. italicum*, L. ♂ S. Europe.—*E. pustulatum*, Sibth. and Sm. ♂ Sicily.—*E. orientale*, L. ♂ Levant.—*E. grandiflorum*, Desf.; B. Reg. 2, t. 124. ⊙ Barbary.—*E. creticum*, L.; B. M. 44, t. 1934. ⊙ Candia.—*E. bonariense*, Poir. ⊙? Buenos Ayres.—*Nonea ciliata*, Röm. and Sch. ⊙ Levant.—*N. lutea*, DC. ⊙ France. Italy.—*Lycopsis orientalis*, L. ⊙ Caria.—*L. variegata*, L. ⊙ Italy.—*Anchusa stoechadifolia*, Cham. and Schlecht. ♃. Brazil,—*A. ciliata*, Cham. and Schlecht. ♃. Tropical Brazil.—*A. tuberosa*, H. B. and Kth. ♂ Mexico.—*Myosotis versicolor*, Roth. ⊙ E. B. 7, t. 480. Europe.—*Echinospermum zeylanicum*, Lehm. ♃. Ceylon.—*E. virginicum*, Lehm. ⊙ Virginia. Carolina.—*Omphalodes linifolia*, Mönch. ⊙ S. Europe.—*Cynoglossum officinale*, L.; E. B. 13, t. 921. ♂ Europe.—*C. pictum*, Ait.; B. M. 47, t. 2134. ♂ S. Europe.—*Heliotropium amplexicaule*, Vahl. ♄ Brazil.—*H. corymbosum*, Ruiz. and Pav.; B. R. 39, t. 1609. ♄ Peru.—*H. zeylanicum*, Lam.; Burm. ind. t. 16, f. 2. ♄ Ceylon.—*H. inundatum*, Swz. ♄ W. Indies. Mexico.—*H. humile*, Lehm. ♄ W. Indies.—*H. europæum*, L. ⊙ S. Europe.—*Tournefortia cymosa*, L. ♄ W. Indies.—*T. foetidissima*, L. ♄ W. Indies. Mexico.—*T. bicolor*, Swz. ♄ Jamaica.—*T. sarmentosa*, Lam. ♄ ◡ Mauritius.—*T. argentea*, L. Rumph. 4, t. 55. ♄ Mauritius. New Holland, &c.—*T. ovata*, Wall. Cat. ♄ Rangoon.—*Messerschmidia volubilis*, Röm. and Sch. ♄ ◠ Jamaica. Mexico.—*M. syringæfolia*, Röm. and Sch. ♄ Cayenne.—*M. laurifolia*, Röm. and Sch. ♄ ◠ St. Thomas.—*Ehretia macrophylla*, Wall. ♄ Nepal.—*E. tinifolia*, L. ♄ Jamaica.—

E. divaricata, DC. ♄ Havannah.—*E. Radula*, Poir. ♄ St. Domingo.—*Beurreria cæsucca*, Jacq. ♄ St. Thomas. Mexico.—*B. succulenta*, Jacq. ♄ Jamaica.—*Cortesia cuneifolia*, Cav. ♄ Buenos Ayres.—*Rhabdia lycioïdes*, Mart. ♄ Brazil.

ORDER CXCVII.—LAMIACEÆ, Lindl. Nat. Syst. p. 275.—(LABIATÆ, Juss.)

THE MINT TRIBE.

Herbs or undershrubs, seldomer shrubs, by Bentham, (Gen. and Spec. Labiatarum 1832-1836,) arranged under 110 genera, in 11 sections. To this work we must refer for the distribution of the order, only adding that the number of E. Indian species, amounts to 299; viz. 80 of *Ocimeæ*; 38 of *Mentheæ*; 8 of *Monardeæ*; 4 of *Satureïeæ*; 7 of *Melisseæ*; 12 of *Scutellariëæ*; 0 of *Prostantheræ*; 25 of *Nepeteæ*; 93 of *Stachyëæ*; 14 of *Prasiëæ*; and 18 of *Ajugeæ*. Many of these have been found in the plains, but the bulk of them consists of Mountain plants, especially from the Northern Provinces.

"Tonic, cordial, and stomachic qualities, due to the presence of an aromatic volatile oil and a bitter principle, are the universal features of Labiatæ, which do not contain a single unwholesome or even suspicious species." (*Lindl.*)

A. Ocimeæ.

(Ocymoïdeæ, *Benth.*;—*G. Don's Mill. dict.* 4, *p.* 666.)

Ocimum, L. (*Benth. Lab. gen. and sp. p.* 1;—*G. Don. l. c.*)

1. *canum*, Sims. (*B. M.* 51, *t.* 2452;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 147.—O americanum, *L. amoen.* 4, *p.* 276; *spec.* 833; not Jacq.—O. stamineum. *B. M. l. c.*, in the text.—O. incanescens, *Mart. and Spix.*—O. album, *Roxb. fl. ind.* 3, *p.* 15; not, L.) ☉ Madagascar. East Indies. China. Brazil, &c. Fl. white, smaller than those of the next species, R. and C. S.; fr. C. S.

2. *Basilicum*, L. (*G. Don. l. c.*)

a. pilosum, Benth. (*Lab. p.* 4;—*G. Don. l. c.*—O. pilosum, *Willd. enum.* 2, *p.* 29;—*Roxb. fl. ind.* 3, *p.* 16.—O. minimum, *Burm.*; not L.—O. Basilicum, *Burm.*—O. hispidum, *Lam.*—O. ciliatum, *Horn.*—O. hispidulum, *Schum.*—Basilicum indicum, *Rumph.* 5, *t.* 92, *f.* 1,) বাবুই তুলসী *Babooï-tulsee.* ♄ Peninsula of India. Bengal, (Serampore,) Hindoosthan, Oude, &c. Fl. small, white, and fr. nearly the whole year. Whole plant aromatic, fragrant.—The *seeds* steeped in water swell into a pleasant jelly, which is used by the natives in cases of catarrh, dysentery, chronic diarrhœa, &c. and is very nourishing and demulcent.

β. *anisatum*, Benth. (*l. c.*;—*G. Don. l. c.*—Ocimum Basilicum, L. *spec.* 833; not Burm.—*Roxb. fl. ind.* 3, *p.* 17.—Basilicum citratum. *Rumph.* 5, *t.* 93, *f.* 1;—*Rheed.* 10, *t.* 87.) *Sweet Basil.* ⊙ Persia.—Very aromatic and fragrant. Fl. small, white, R. and C. S.; fr. C. S.

γ. *glabratum*, Benth. (*l. c.*;—*G. Don. l. c.*—Ocimum caryophyllatum, *Roxb. fl. ind.* 3, *p.* 16.—O. integerrimum, *Willd.*—O. lanceolatum, *Schum.*) গুলাল তুলসী *Goolal-tulsee.* ♄ Guinea. Penang. Bengal, (Serampore.) Patna &c. Fl. smallish-white, R. and C. S.; fr. C. S. Whole plant very aromatic and fragrant.

δ. *thyrsiflorum*, Benth. (*l. c.*;—*G. Don. o. c. p.* 671.—Ocimum thyrsiflorum. *L.*; *Murr. comm. gött.* 8, *t.* 5;—*Jacq. h. vind.* 3, *p.* 72;—*Roxb. fl. ind.* 3, *p.* 15.) ♂ Peninsula of India. Fl. smallish, pale pink, and fr. nearly the whole year. Whole plant very aromatic and fragrant.

3. *gratissimum*, L. (*G. Don's Mill. dict.* 4, *p.* 671;—*Jacq. rar.* 3, *t.* 495;—*Roxb. fl. ind.* 3, *p.* 17;—*J. Grah. Cat. B. pl. p.* 147.—O. zeylanicum, *Burm. zeyl. t.* 80, *f.* 1.—O. petiolare, *Lam.*—*Rheed.* 10, t. 86.) রাম তুলসী *Ram tulsee.* ♄ Only found in gardens. Diffuses a very strong degree of fragrance. Fl. white, pale-yellow, and fr. nearly the whole year.

4. *adscendens*, Willd. (*G. Don. o. c. p.* 672.—O. cristatum, *Kön.*;—*Roxb. fl. ind.* 3, *p.* 19.—O. indicum, *Roth.*;—Plectranthus indicus, *Spreng.*) বন তুলসী *Bun-tulsee.* ♂ Peninsula of India. Bengal, (Serampore.) Fl. small, pale rose-coloured, R. S.; fr. C. S. Whole plant scentless.

5. *sanctum*, L. (*G. Don's Mill. dict.* 4, *p.* 672; excl. syn. Roxb.—*Roxb. fl. ind.* 3, *p.* 14;—*J. Grah. Cat. B. pl. p.* 147.—O. hirsutum, *Benth. in Wall. pl. as. rar.* 2, *p.* 14;—O. tomentosum, *Lam.*—O. tenuiflorum, *Lam.*;—Willd.; not L.—O. frutescens, *Burm. ind. p.* 129;—*Burm. zeyl. t.* 80, *f.* 1.—Lumnitzera tenuiflora, *Spreng.*—Plectranthus monachorum, *Spreng.*—Basilicum agreste, *Rumph.* 5, *t.* 92, *f.* 2.—*Rheed.* 10, *t.* 85.) কালো তুলসী *Kalo-tulsee.* কৃষ্ণ তুলসী *Krishno-tulsee.* ♄ Found cultivated about the Hindoo temples. Fl. small, pale purple, and fr. nearly the whole year. Whole plant dark purple, and gratefully smelling. The juice expressed forms one of the ingredients of a celebrated and rather effectual nostrum for the cure of ringworms. (*Dr. Gibson.*)

6. *villosum*, Roxb. (*fl. ind.* 3, *p.* 13; excl. syn. Rheed.; not Weinm.) তুলসী *Tulsee.* ♄ Common about the Hindoo temples; aromatic. Fl. small, pale greenish rose-coloured, and fr. the whole year.

7. *micranthum*, Willd. (*G. Don's Mill. dict.* 4, *p.* 672.—O. frutescens, *Sieb.*—O. americanum, of several authors.—O. pubescens, *Mill. dict.*—O. montanum, *Hook.*; *B. M.* 57, *t.* 2996.) ⊙ Tropical America, from Carracas to Rio Janeiro. Fl. small, white or purple, and fr. nearly throughout the year. Whole plant fragrant.

8. *inodorum*, Kön. (*Roxb. fl. ind.* 3, *p.* 19.) ♂ ♃. India about old walls, and under the shade of bushes. Fl. very minute, white, and fr. R. and C. S. Scentless.

Geniosporum, Wall. (*Benth. Lab. p.* 19;—*G. Don's Mill. dict.* 4, *p.* 674.)

1. *strobiliferum*, Wall. (*Benth. Lab. p.* 20;—*G. Don. l. c.*—Plectranthus coloratus, *D. Don. pr. fl. nep. p.* 116.) ♄ Khassya Mountains. Nepal. Fl. small, blue, C. S.

Moschosma, Reichb. (*G. Don's Mill. dict.* 4, *p.* 675.)

1. *polystachya*, Reichb. (Lumnitzera polystachya, *Jacq.*—Ocimum polystachyon, *L.*;—*Murr. comm. gött. nov.* 3, *p.* 71, *t.* 3;—*Roxb. fl. ind.* 3, *p.* 18.—O. tenuiflorum, *Burm. ind. p.* 129; not L.—Plectranthus micranthus, *Spreng.*) ⊙ Circars. Travancore. Rangoon. Fl. minute, pale purple, R. S.; fr. C. S. Possesses little or no fragrance.

Orthosiphon, Benth. (*Lab. p.* 25;—*G. Don's Mill. dict.* 4, *p.* 676.)

1. *incurvus*, Benth. (*Lab. p.* 28;—*G. Don. l. c.*;—*B. M.* 67, *t.* 3847.) ♃. Silhet. Fl. twelve lines, pale rose-coloured, R. and C. S.
2. *stamineus*, (*Benth. G. Don's Mill. dict.* 4, *p.* 677.—Ocymum grandiflorum, *M. Bijdr. p.* 835.) ♃. Lower Assam. R. S.

Saccostoma, Wall. MSS.

1. *urticæfolium*, Wall. MSS. ♃. Munipore. Fl. small, white, R. and C. S.

Plectranthus, L'Herit. (*G. Don's Mill. dict. p.* 677;—*Benth. Lab. p.* 29.)

1. *secundus*, Roxb. (*H. B. p.* 45;—*fl. ind.* 3, *p.* 20.—P. cordifolius, *D. Don. pr. fl. nep.* (1825.) *p.* 116;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 148.—P. mollis, *Spreng. syst.* 2, *p.* 69. (1825.);—*Benth. Lab. p.* 35.—P. divaricatus, *Weinm. obs. in Regenb. bot. zeit.* (1821.)—P. incanus, *Lk. enum.* 2, *p.* 120. (1822.)—P. magpurensis, *Roth. nov. spec. p.* 271. (1821.)—Ocimum molle, *Ait.*—*Rheed.* 10, *t.* 84.) ⊙ Mysore. Abundant throughout Kandalla village, on the ruins of Rosa, near Ellora Caves, and generally every where near the habitations of man, in the Presidency of Bombay. Nepal. Fl. small, pale yellow, (*Roxb.*) blue, (*J. Grah.*) In H. C. G. fl. Oct. and Nov.; fr. Jan. and Feb. (*Roxb.*)
2. *parviflorus*, Willd. (*Hort. berol.* 1, *p.* 65; not R. Br.—*G. Don's Mill. dict. p.* 679.—P. graveolens, *R. Br. pr. p.* 506.—P. paniculatus, *Jacq. fragm. p.* 62, *t.* 91.) ♄ Tropical New Holland. Mountains about Port Jackson. Sandwich Islands. Fl. blue, or purple. Has been introduced into H. C. G. Fl.?
3. *rugosus*, Wall. (*Benth. Lab. p.* 43;—*G. Don's Mill. dict.* 4, *p.* 681.—Lumnitzera densiflora, *Spreng.*—Isodon plectranthoïdes, *Schrad.*) ♄ Mount Choor. Sirmore. Deyra Dhoon. Fl. small, with the upper lip purple edged and purple dotted, R. and C. S. The *leaves* have an aromatic, sage-like smell, and a somewhat bitterish taste.

Coleus, Lour. (*Benth. Lab. p.* 47;—*G. Don's Mill. dict.* 4, *p.* 682.)

1. *barbatus*, Benth. (*Lab. p.* 49;—*G. Don. l. c.*—*J. Grah. Cat. B. pl.*

p. 148.—Plectranthus barbatus, *Andr. B. Repos. t.* 594.—P. Forskälii, *Willd.*;—*B. M.* 46, *t.* 2036.—P. comosus, *Sims.*; *B. M.* 49, *t.* 2318.—P. asper, *Spreng.*—P. monadelphus, *Roxb. fl. ind.* 3, *p.* 22.—Germanea Forskälii, *Poir.*—Ocimum asperum, *Roth.*) ⊙ Bangalore. Dindygul. Guzerat. Nepal. Kemaon. Fl. small, light purple. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*) The whole plant possesses a strong, though not disagreeable smell. (*Roxb.*) Commonly cultivated in native gardens at Bombay for the roots, which are pickled. (*Dr. Gibson.*) Sold in the green-market, Bombay. (*Nimmo.*)

2. *amboinicus*, Lour. (*fl. cochinch. p.* 372.—C. aromaticus, *Benth.*;—*G. Don's Mill. dict.* 4, *p.* 682;—*B. Reg.* 18, *t.* 1520;—*J. Grah. Cat. B. pl. p.* 148.—C. crassifolius, *Benth. Lab. p.* 51.—Plectranthus aromaticus, *Roxb. fl. ind.* 3, *p.* 22.—P. amboinensis, *Spreng.* ?—P. crassifolius, *Hortul.*—Marrubium album amboinicum, *Rumph.* 5, *t.* 102, *f.* 3.) পাথর চুর *Pathur-choor.* ♃. Common in gardens, Cochin China, the Moluccas. India, &c. Fl. smallish, pale blue, very aromatic, April; fr. 0. *Leaves*, and, indeed, all the parts of the plant, delightfully fragrant. The former are frequently eaten with bread and butter, or bruised and mixed with various articles of food, drink, or medicine. (*Roxb.*)

3. *scutellarioïdes*, Benth. (*Lab. p.* 53;—*G. Don's Mill. dict.* 4, *p.* 683.—Plectranthus scutellaroïdes. *Roxb. fl. ind.* 3, *p.* 21;—*R. Br. pr. p.* 506.—Ocimum scutellaroïdes, *L.*;—*B. M.* 35, *t.* 1446.—Majoiana rubra, *Rumph.* 5, *t.* 101.) ♄ Moluccas. Tropical N. Holland. Mauritius. Fl. small, pale blue, with a white tube and throat, March and April. Scentless.

Anisochilos, Wall. (*Benth. Lab. p.* 59;—*G. Don's Mill. dict.* 4, *p.* 685.)

1. *carnosum*, Wall. (*Benth. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 148.—Lavandula carnosa, *L. amoen.* 10, *p.* 56, *t.* 3.—Plectranthus carnosus, *Sm.*—P. strobiliferus, *Roxb. fl. ind.* 3, *p.* 23.—P. dubius, *Spreng.*—P. crassifolius, *Hortul.*;—*Rheed.* 10, *t.* 90.) ♃. Clefts of the rocks among the Circar Mountains. Taong-Dong. Fl. smallish, bluish purple, R. and C. S.

Hyptis, Jacq. (*Benth. Lab. p.* 64;—*G. Don's Mill. dict.* 4, *p.* 686.)

1. *pectinata*, Poit. (*Ann. mus.* 7, *p.* 474;—*Benth. Lab. p.* 127;—*G. Don. o. c. p.* 703.—H. persica, *Poit.*—H. racemosa, *Zucc.* ?—Mentha perilloïdes, *L. syst. ed.* 13, *p.* 445; not of others.—Nepeta pectinata, *L. spec.* 799.—N. aristata, *Rich.*—Bystropogon pectinatus, *L'Herit.*—B. coarctatus, *Thonn. and Schum.*—Brotera persica, *Spreng.*—Ballota disticha, *Rodsch.*;—*Meyer*; not L.—B. suaveolens, *Rodsch.*; not L.) ⊙ Tropical America. W. Indies. Guinea. Madagascar. Arabia. Fl. small, blue, R. S.; fr. C. S.

2. *radiata*, Willd. ⊙ Mexico.

Lavandula, Tournef. (*Benth. Lab. p.* 146;—*G. Don's Mill. dict.* 4, *p.* 708.)

1. *Spica*, DC. (*G. Don. o. c. p.* 710;—*Roxb. H. B. p.* 44;—*J. Grah.*

Cat. B. pl. p. 149.—L. Spica, β. *L.*—L. vulgaris, β. *Lam.*—L. latifolia, *Vill.*) *Common Lavender.* ♄ S. Europe. N. Africa. Fl. small, indigo coloured, July, but rarely.

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* *Ocimum viride*, Willd. (O. febrifugum, Ker.; B. R. 9, t. 753.) ♄ West coast of Africa, within the Tropics.—*O. suave*, Willd. ♄ Madagascar.—*O. Bojeri*, Benth. ♄ Madagascar.—*O. serpyllifolium*, Forsk. ♄ Arabia. C. G. H.—*Geniosporum parviflorum*, Benth. ♃. Silhet.—*G. prostratum*, Benth. ♃. Coromandel. Ceylon. S. Concan.—*Acrocephalus capitatus*, Benth. ⊙ China.—*Moschosma ocymoïdes*, Benth. ⊙ Silhet.—*Orthosiphon rubicundus*, Benth. ♃. Nepal.—*O. virgatus*, Benth. ♃. Morung Mountains.—*O. tomentosus*, Benth. ♃. Madras.—*O. pallidus*, Royle. ♃. Banks of the Jumna.—*O. glabratus*, Benth. ♃ Courtallum.—*O. scapiger*, Benth. ♃. Nepal.—*O. stamineus*, Benth. ♃. Banks of the Attran.—*Plectranthus fruticosus*, L'Her. ♄ C. G. H.—*P. rotundifolius*, Spreng. ♃. The Concans. Mauritius.—*P. ternatus*, Sims.; B. M. 51, t. 2460. ♃. Madagascar.—*P. madagascariensis*, Benth. ♃. Madagascar. Mauritius.—*P. striatus*, Benth. ♃. Silhet. Nepal.—*P. Coetsa*, D. Don. ♃. Simla. Mussooree. &c.—*P. ternifolius*, D. Don. ♃. Silhet. Nepal, &c.—*Coleus Bojeri*, Benth. ♃. Madagascar.—*C. atropurpureus*, Benth. ♃. Singapore.—*Anisochilos pallidum*, Wall. ♃. Taong-Dong.—*Hyptis radiata*, Willd. ♃. Carolina. Mexico.—*H. barbata*, Schrank. ♄ Brazil.—*H. canescens*, H. B. and Kth. ♃. Caraccas.—*H. spicata*, Poit. ♂. Mexico.—*H. suaveolens*, Poit. ⊙ Mexico. &c.—*H. scoparia*, Poit. ♄ Portorico.—*H. tomentosa*, Poit. ♄ Mexico.—*Eriope nudiflora*, H. B. and Kth. ♄ Guiana.—*Lavandula Stoechas*, L. ♄ S. Europe. N. Africa.—*L. viridis*, Ait. ♄ Portugal.—*L. dentata*. L.; B. M. 12, t. 400. ♄ S. Europe, N. Africa.—*L. vera*, DC. (*True Lavender.*) ♄ S. Europe. N. Africa.—*L. multifida*, L. ♂. S. Europe. N. Africa.—*L. Burmanni*, Benth. ♃. Deccan.

B. Mentheæ.

(Menthoïdeæ, *Benth. Lab. p.* 152;—*G. Don's Mill. dict.* 4, *p.* 711.)

Pogostemon, Desf. (*Benth, l. c.;—G. Don. l. c.*)

1. *plectranthoïdes*, (*Desf.—Benth. l. c.;—G. Don. l. c.;—B. M.* 60, *t.* 3238.—Origanum bengalense, *Burm. ind. t.* 38, *f.* 1.—Mentha secunda, *Roxb. H. B. p.* 44.—M. fruticosa, *Roxb. fl. ind.* 3, *p.* 6.—Wensea pyramidata, *Wendl. coll.* 2, *p.* 26, *t.* 84.) বীল লতা *Beel-luta.* ♄ Bengal, (Serampore.) Hindoosthan. Deyra-Dhoon. Kheree Pass. Kemaon. Fl. small, tinged with deep rose, C. S.; fr. H. S. The plant possesses a strong, heavy, aromatic smell, and a bitterish taste. (*Roxb.*)

Dysophylla, Bl. (*Benth. Lab. p.* 156;—*G. Don's Mill. dict.* 4, *p.* 712.)

1. *quadrifolia*, Benth. (*l. c.;—G. Don. l. c.*—Mentha quadrifolia, *Roxb. fl. ind.* 3, *p.* 4; not D. Don.—Chotekia sericea, *Opiz. and Corda.*) ♄ Circars. Tavoy. Fl. small, rose-coloured, R. and C. S.; fr. C. S.

2. *verticillata*, Benth. (*o. c.*;—*G. Don. l. c. p.* 713.—Mentha stellata, *Lour.*—M. verticillata, *Roxb. fl. ind.* 3, *p.* 5.) পানী কলা *Panee-kula.* ⊙ Cochin China. Bengal, (Serampore,) &c. in wet places. Fl. minute, purple, R. S.; fr. C. S. Smell and taste very aromatic. (*Roxb.*)

3. *Auricularia*, Bl. (*G. Don's Mill. dict.* 4, *p.* 712.—Mentha Auricularia, *L.*—*Roxb. fl. ind.* 3, *p.* 4.—M. foetida, *Burm. ind. p.* 126.—Majana foetida, *Rumph.* 6, *t.* 16, *f.* 2.) ♃. Mahableshwur? Ceylon. Taong-Dong. Penang. Moluccas. Java. Silhet. Has been introduced into H. C. G.

COLEBROOKIA, Sm. (*Benth. Lab. p.* 165;—*G. Don's Mill. dict.* 4, *p.* 715.)

1. *oppositifolia*, Sm. (*Exot. bot.* 2, *p.* 111, *t.* 115;—*G. Don. l. c.*;—*Roxb. fl. ind.* 3, *p.* 26.—Elzholtzia oppositifolia, *Poir. suppl.* 5, *p.* 663, *f.* 75.) ♄ Nepal. Kemaon. Fl. minute, white, inodorous, Feb. and March; fr. H. S.

2. *ternifolia*, Roxb. (*Corom.* 3, *t.* 245; *fl. ind.* 3, *p.* 25;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 150, excl. syn. Sm.) ♄ Mysore. Kandalla Ghaut. Hills about Parr. Sidney. Mahableshwur, &c. Fl. minute, white, inodorous, Feb. and March; fr. H. S.

PERILLA, L. (*Benth. Lab. p.* 166;—*G. Don's Mill. dict.* 4, *p.* 715.)

1. *ocimoïdes*, L. (*Benth. l. c.*;—*G. Don. l. c.*;—*B. M.* 50, *t.* 2395;—*J. Grah. Cat. B. pl. p.* 150.—Mentha perilloïdes, *Lam.*;—*Roxb. fl. ind.* 3, *p.* 7; not L.—Ocimum frutescens, L.—Melissa maxima, *Arduin. spec.* 2, *p.* 28, *t.* 13.) ⊙ Common on the Ghauts, and at Mahableshwur. Ava. Silhet. Nepal. Kemaon. Fl. very small, white. C. S.; fr. H. S. The whole plant has a strong, rather disagreeable smell. (*J. Grah.*)

MENTHA, Pliny. L. (*Benth. Lab. p.* 168;—*G. Don's Mill. dict.* 4, *p.* 716.)

1. *sylvestris*, L. (*G. Don. l. c.*)

   δ. *vulgaris*, Benth. (*Lab. p.* 171;—*G. Don. l. c.*—M. sylvestris, *Sm.*; *E. B.* 10, *t.* 686.—M. candicans, *Mill. dict.*—M. gratissima, *Willd.*—M. niliaca, *Willd.* not Vahl.—M. longifolia, *Huds.*) *Horse Mint.* ♃. Europe. Tauria. Caucasus. Siberia. C. G. H. &c. Fl. very small, purplish. Has been cultivated for many years in the garden here without flowering.

2. *viridis*, L. (*G. Don's Mill. dict.* 4, *p.* 717;—*E. B.* 34, *t.* 2424.—M. verticillata, *Feuill.*—M. spicata, *Crantz.*—M. ocimiodora, *Opiz.*—M. brevispicata, *Lehm.*—M. balsamea, *Reichb.?* not Willd.—M. niliaca, *Vahl.*; not Willd.—M. tenuis, *Michx.*—M. sativa, *Roxb. fl. ind.* 3, *p.* 6; not L.;—*J. Grah. Cat. B. pl. p.* 151, excl. syn.—M. Pudina, *Buch.*—M. lævigata, *Willd.*) পুদিনা *Poodina.* ♃. Temperate parts of Europe. C. G. H. N. and S. America, where, as in our gardens, it is probably but domesticated. Fl. small, purplish. Does not fl. in Lower Bengal. It was introduced into H. C. G. in 1795, but had not fl. up to 1814.

3. *piperita*, L. (*G. Don. o. c. p.* 718;—*E. B.* 10, *t.* 687.—M. glabrata, *Vahl.*—M. kahirina, *Forsk.*) *Pepper Mint.* 4. N. Europe. Cultivated throughout Europe, Egypt, Asia, and America. Fl. small, purple. Has been cultivated for more than fourteen years in the garden here, without flowering.

4. *arvensis*, L. (*G. Don. o. c. p.* 719.)

ζ. *vulgaris*, Benth. (*Lab. p.* 179;—*G. Don. l. c.*—M. arvensis, *Sole, menth. brit. t.* 12;—*E. B.* 30. *t.* 2119.—M. agrestis, *Sole, o. c. t.* 14;—*E. B.* 30, *t.* 2120.—M. gentilis, *Mill. dict. No.* 15, &c.—M. austriaca, *Jacq.*—M. palustris, *Mönch*, &c.) 4. Europe. N. and M. Asia. Fl. small, purplish. Has been introduced into H. C. G. Fl. ?

Lycopus, Tournef. (*Benth. Lab. p.* 185;—*G. Don's Mill. dict.* 4, *p.* 720.)

1. *exaltatus*, L. fil. (*Benth. l. c.;—G. Don. l. c.;—Sibth. and Sm. fl. græc. t.* 12.—L. pinnatifidus, *Pall. fl. ross.* 2, *t.* 1.) 4. E. Europe, Middle Asia, in humid or watery places. Fl. small, white. Has been cultivated in the garden here for several years, without flowering.

Meriandra, Benth. (*Lab. p.* 188;—*G. Don's Mill. dict.* 4, *p.* 722.)

1. *strobilifera*, Benth. (*l. c.;—G. Don. l. c.*) ♄ Sirmore. Simla. Fl. very small, white, March and April. The whole plant has a very strong, camphor-like smell, and a bitterish taste.

2. *bengalensis*, Benth. (*l. c.;—G. Don. l. c.;—J. Grah. Cat. B. pl. p.* 151.) —Salvia bengalensis, *Kön.;—Roxb. fl. ind.* 1, *p.* 145; *ed. Carey*, 1, *p.* 146.—S. dianthera, *Roth.*—S. abyssinica, *R. Br. app. to Salt. abyss.*—S. stellata, *Buch. Herb.*) ♄ Coromandel. Bengal. Abyssinia. Fl. small, white, May and R. S.; fr. C. S. The whole plant has a very strong camphor-like smell and taste, even stronger than those of the common Sage, whose virtues it possesses.

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* *Pogostemon paniculatus*, Benth. Rheed. 10, t. 65. 4. The Concans. Tavoy.—*P. parviflorus*, Benth. 4. Silhet.—*P. Heyneanus*, Benth. Rheed. 10, t. 77. 4. The Concans.—*Dysophylla strigosa*, Benth. 4. Silhet.—*D. cruciata*, Benth. 4. Nepal.—*D. crassicaulis*, Benth. 4. Silhet.—*D. pumila*, Benth. (Mentha verticillata, Hook., B. M. 56, t. 2907.) 4. Nepal.—*Elsholtzia polystachya*, Benth. (Aphanochilus polystachyus, Benth. in Wall. pl. as. rar. 1, t. 33, not Mentha fruticosa, Roxb.) ♄ Mussooree.—*E. blanda*, Benth. (Aphanochilus blandus, Benth.; Hook. B. M. 58, t. 3091.) 4. Silhet. Nepal.—*E. incisa*, Benth. 4. Deyra Dhoon. Taong-Dong.—*E. strobilifera*, Benth. 4. Nepal.—*E. cristata*, Willd.; B. M. 52, t. 2560. ⊙ Siberia.—*Tetradenia fruticosa*, Benth. ♄ Madagascar.—*Isanthus cæruleus*, Michx. ⊙ Carolina, &c.—*Preslia cervina*, Fresen. 4. Ditches of S. Europe.—*Mentha Royleana*, Benth. 4. Deyra-Dhoon.—*M. rotundifolia*, L. 4. Europe. N. Africa.—*M. suavis*, Guss. 4. Italy. Sicily.—*M. aquatica*, L. (M. hirsuta, Sm.; E. B. 7, t. 447.) 4. Watery places of Europe.—*M. lanceolata*, Benth. 4. Cey-

lon.—*M. mollis*, Benth. ♃. Tropical America.—*M. Pulegium*, L.; E. B. 15, t. 1026. ♃. Europe, in ditches.

C. MONARDEÆ, Benth.

(*Lab. p.* 190;—*G. Don's Mill. dict. p.* 722.)

SALVIA, L. (*Benth. l. c.*;—*G. Don. l. c.*)

1. *officinalis*, L. (*G. Don. o. c. p.* 723;—*Roxb. H. B. p.* 4;—*J. Grah. Cat. B. pl. p.* 151.—S. grandiflora, *Ten.*; not Ettling.) *Common Sage.* ♄ S. Europe. Was introduced into H. C. G., in 1809, but had not fl. up to 1814.
2. *aurea*, L. (*G. Don. o. c. p.* 726;—*B. M.* 6, *t.* 182.—S. colorata, *L.?* not Vahl.—S. africana, &c. *Commel. hort.* 2, *p.* 183, *t.* 92.) ♄ C. G. H. Fl. large, orange, quickly becoming coloured like rusty iron, March; fr. 0.
3. *africana*, L. (*G. Don. l. c.*;—*Commel. hort.* 2, *p.* 181, *t.* 91;—*Mill. fig. t.* 225, *f.* 1;—S. colorata, *Vahl.*; not L.—S. integerrima, *Mill. fig. t.* 225, *f.* 2.) ♄ C. G. H. Fl. largish, white bluish, March; fr. 0.
4. *nubicola*, Wall. (*Benth. Lab. p.* 219;—*G. Don. l. c.*;—*Swt. fl. gard.* 2, *t.* 140.) ♃. Kemaon. Shrinaghur. Kidar-kanta. Valley of Cashmere. Simla. Fl. largish, pale yellow, C. S.; fr. 0.
5. *Horminum*, L. (*G. Don. o. c. p.* 727;—*Sibth. and Sm. fl. græc.* 1, *t.* 20.—S. colorata, *Thore*; not L.; nor Vahl.—Horminum sativum, *Mill. dict. No.* 5.—H. coloratum, *Mönch.*) ☉ S. Europe. N. Africa. W. Asia, along the Mediterranean. Fl. smallish, purple, Feb. and March; fr. April.
6. *syriaca*, L. (*G. Don. o. c. p.* 728;—*Roxb. H. B. p.* 4.—Horminum syriacum, *Bauh.*—Sclarea syriaca, *Mill. dict. No.* 5.) ♃. Persia. Palestine. Syria, near Aleppo. Fl. white. In H. C. G. fl. C. S.; fr. 0. (*Roxb.*)
7. *Sclarea*, L. (*G. Don. l. c.*;—*Sibth. and Sm. fl. græc.* 1, *t.* 25.—S. Simsiana, *Röm. and Sch.*;—*B. Reg.* 12, *t.* 1003.—S. bracteata, *Sims.*; *B. M.* 49, *t.* 2320; not Russel. Sclarea vulgaris, *Mill. dict. No.* 1.) ♂ S. Europe. Fl. large, pale blue, with large, greenish rose-coloured bractes, C. S.; fr. 0.
8. *lanata*, Roxb. (*fl. ind.* 1, *p.* 146; *ed. Carey*, 1, *p.* 147;—*G. Don. o. c. p.* 730;—*Wight. icon.* 2, *t.* 325;—*Wall. pl. as. rar.* 2, *t.* 116, under name of S. cana, afterwards corrected to S. lanata.—S. integrifolia, *Hardw.*—Stenarrhena lanata, *D. Don. pr. fl. nep. p.* 111.) ♄ Kemaon. Sirmore. Mussooree. Fl. large, purple, C. S.; fr. 0.
9. *pratensis*, L. (*G. Don. o. c. p.* 731;—*E. B.* 3, *t.* 153;—S. hæmatodes, *L. sp. p.* 35.—S. agrestis, *L. amæn.* 3, *p.* 399?—S. Barrelieri, *Ten.*—S. Tenorii, *Spreng.*;—*Swt. fl. gard.* 1, *t.* 26.—S. rubicunda, *Wenderoth.*—S. virgata, *Sav.* not Ait.—S. variegata, *Waldst. and Kit.*—S. tricolor, *Hortul.*) ♃. Middle and S. Europe, in dry grassy fields, and by way-sides. Fl. large, blue, H. and R. S. Not very aromatic.

10. *lusitanica*, Jacq. fil. (*Ecl.* 1, *p.* 57, *t.* 38, excl. syn. Vahl. and Poir.—*G. Don. l. c.*—Sclarea lusitanica, *Mill. dict. No.* 3 ?) ♃. Spain. Portugal. Fl. small, blue, H. S.
11. *Verbenaca*, L. (*G. Don. o. c. p.* 733 ;—*E. B.* 3, *t.* 154 ;—*Curt. lond.* 6, *t.* 1.—S. Spielmanni, *Willd.* not Scop.—S. Spielmanniana, *Bieb.*—S. illyrica, *Schult.*—S. micrantha, *Desf.* ; not Vahl.—S. horminoïdes, *Pourr.*—S. byzantina and heterophylla, *Hortul.*—Horminum Verbenacum, *Mill. dict. No.* 1.) ♃ N. and M. Europe. Tauria. Caucasus. Fl. small, purple, H. and R. S. Very aromatic when rubbed. The seeds produce a great quantity of mucilage when moistened, whence they become serviceable for removing extraneous matter from the eyes.
12. *clandestina*, L. (*Spec. p.* 36 ; not of his Hb.—*G. Don. l. c.*—S. Verbenaca, *Vahl.* ; not. L. ;—*Reichb. icon. bot.* 6, *t.* 523.—S. verbenacioïdes, *Brot.*) ♃. S. Europe. N. Africa. Madeira. Syria. Caucasus. Fl. small, pale blue, or pale purple, C. S. ; fr. H. S. Plant very variable.
13. *hispanica*, L. (*G. Don. o. c. p.* 739 ;—*B. Reg.* 5, *t.* 359.—S. tetragona, *Mönch.*—S. prismatica, *Cav.* ;—*Lam. ill. t.* 20, *f.* 2.) ⊙ Tropical America. Jamaica. Mexico. Now apparently naturalized in S. Europe. Fl. small, pale blue, Feb. and March ; fr. H. S.
14. *splendens*, Sello. (*Benth. Lab. p.* 287 ;—*G. Don. o. c. p.* 748 ;—*B. Reg.* 8, *t.* 687 ;—S. brasiliensis, *Spreng.*—S. colorans, *Hortul.*) ♃. Woods in Brazil, near Rio Janeiro. Fl. large, deep scarlet, C. and H. S. ; fr. 0.
15. *coccinea*, L. (*G. Don. o. c. p.* 749 ;—*Roxb. H. B. p.* 4 ;—*Murr. comm. gött.* 1778, *p.* 86, *t.* 1.—S. rosea, *Vahl.*—S. glaucescens, *Pohl. pl. bras.* 2, *t.* 192.—Horminum coccineum, *Mönch.*) ♄ Florida. Georgia. Mexico. Cuba. Jamaica. Brazil. Domesticated in many parts of India. Fl. large, scarlet, and fr. nearly throughout the year.—*Leaves* slightly aromatic, very bitter.
16. *lyrata*, L. (*G. Don. o. c. p.* 755.—Cunila lyrata, *Schrank.*—Horminum lyratum, *Mill. dict. No.* 2.—H. virginicum, *L.*) ♃. Virginia. Carolina. Georgia. Fl. purplish-violet. Was introduced into H. C. G. in 1790, but had not fl. up to 1814.
17. *plebeia*, R. Br. (*pr. p.* 501 ;—*G. Don. o. c. p.* 756.—S. minutiflora, *Bunge enum. pl. chin. p.* 146.—S. brachiata, *Roxb. fl. ind.* 1, *p.* 145 ; *ed. Carey*, 1, *p.* 146.—S. parviflora, *Roxb. H. B. p.* 4.—Ocimum fastigiatum, *Roth.*—Lumnitzera fastigiata, *Spreng.*) কোক বরাদী *Koka-buradee.* হু তুলসী *Bhoo-tulsee.* ⊙ Tropical New Holland. China. Deyra-Dhoon. Oude. Hindoosthan. Silhet. Cashmere. Bengal, (Serampore.) Fl. minute, purple, and fr. C. S. Slightly aromatic.
18. *verticillata*, L. (*G. Don. l. c.*—Horminum verticillatum, *Mill. dict. No.* 3.) ♃. S. Europe. N. Africa. Caucasus. Fl. largish, bluish-violet, C. S.
19. *napifolia*, Jacq. (*Hort. vind.* 2, *t.* 152 ;—*G. Don. l. c.*) ♃. Asia Minor, among bushes about Smyrna. Fl. small, bluish-purple, C. S.

ROSMARINUS, Tournef. (*Benth. Lab. p.* 314 ;—*G. Don. o. c. p.* 757.)

1. *officinalis*, L. (*G. Don. l. c.* ;—*Sibth. and Sm. fl. græc.* 1, *t.* 14.—*J. Grah. Cat. B. pl. p.* 151.—R. latifolius, *Mill. dict. No.* 2.) *Common. Rosemary.* ♄ S. Europe. N. Africa. Fl. whitish, with blue spots and dots. Has been cultivated in the garden here for many years, without flowering

MONARDA, L. (*Benth. Lab. p.* 315 ;—*G. Don. o. c. p.* 758.)

1. *fistulosa*, L. (*G. Don. l. c.* ;—*Reichb. icon. exot.* 2, *t.* 172 ;—*Mill. fig. t.* 183, *f.* 2.) ♃. N. America. Texas. Mexico. Fl. large, purplish or pale red, never-scarlet, C. S.
2. *punctata*, L. (*G. Don. o. c. p.* 759 ;—*B. Repos.* 8, *t.* 546 ;—*B. Reg.* 1, *t.* 87 ;—*Roxb. H. B. p.* 4.—M. lutea, *Michx.*) ♃. N. America, from Virginia and New Jersey to Florida, Carolina, and New Orleans. Fl. yellowish, dotted with brown, largish, C. S.

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* *Salvia cretica*, L. ♄ Candia.—*S. interrupta*, Schousb. ; Swt. fl. gard. 2, t. 169. ♄ S. Morocco.—*S. bracteata*, Russ. ♃. Syria, near Aleppo. —*S. viridis*, L. ☉ S. Europe. N. Africa.—*S. Forskählii*, L. ;—B. M. 25, t. 988. ♃.? Levant.—*S. indica*, L., B. M. 11, t. 376. ♃. Persia ? —*S. odorata*, Willd. ♄ Bagdad.—*S. spinosa*, L. ♂. Syria. Egypt.—S. *argentea*, L. ♂. S. Europe. N. Africa.—*S. austriaca*, L. B. Reg. 12, t. 1019. ♃. S. Austria.—*S. occidentalis*, Swz. ♃. Mexico. W. Indies—*S. tiliæfolia*, Vahl. ♃. Mexico.—*S. angustifolia*, Cav. ♃. Mexico —*S. chamædryoïdes*, Cav. ; B. M. 21, t. 808. ♃. Mexico.—*S. scordonia*, Poir. ♄ Mexico.—*S. amarissima*, Ort. ; B. Reg. 4, t. 347. ♃. Mexico.—*S. involucrata*, Cav. ; B. M. 55, t. 2874 ; B. Reg. 14, t. 1205. ♄ Mexico.—*S. Grahamii*, Benth ; B. Reg. 16, t. 1370. ♄ Mexico.—*S. pseudococcinea*, Jacq. B. M. 55, t. 2864. ♃. Trinidad.—*S. pulchella*, DC. ♄ Mexico.—*S. fulgens*, Cav. ; B. Reg. 16, t. 1356. ♄ Mexico.—*S. mexicana*, L. ♄ Mexico.—*S. lamiifolia*, Jacq. ♄ Trinidad. St. Vincent.—*S. purpurea*, Cav. ♃. Mexico.—*S. nilotica*, Vahl. ♃. Egypt.—*Blephilia ciliata*, Rafin. ♃. Carolina.—*Ziziphora hispanica*, L. ☉ Spain.

D. SATUREIËÆ.

(Satureineæ, *Benth. Lab. p.* 324 ;—*G. Don's Mill. dict.* 4, *p.* 761.)

ORIGANUM, L. (*Benth. Lab. p.* 334 ;—*G. Don. o. c. p.* 764.)

1. *vulgare*, L. (*G. Don. l. c. p.* 765.—*E. B.* 16, *t.* 1143.—O. stoloniferum, *Bess.*—O. orientale, *Mill. dict. No.* 5.—O. decipiens, *Wallr.*) *Common Marjoram.* ♃. Europe. N. Africa. Middle Asia. (Caucasus. Siberia. Cashmere.) Fl. small, rose-coloured, or purple, C. S. ; fr. 0.

MARJORANA, Mönch. (*Benth. Lab. p.* 338 ;—*G. Don. o. c. p.* 766.)

1. *hortensis*, Mönch. (*Benth. l. c.* ;—*G. Don. l. c.* ;—*J. Grah. Cat. B. pl. p.* 152.—M. vulgaris, *Bauh.*—Origanum Marjorana, *L.*—*Roxb. H. B. p.* 44.—O. marjoranoïdes, *Willd.*—O. Wallichianum, *Benth. in Wall. pl. as. rar.* 1, *p.* 31.—O. onites, *Lam.* ; not L.—O. acinacifolium,

Wallr.—Amaracus vulgatior, *Löb.*) *Sweet Marjoram.* ♄ Fl. small, purplish, or white, C. S.; fr. H. S.

THYMUS, L. (*Benth. Lab. p.* 340;—*G. Don. o. c. p.* 767.)

1. *vulgaris*, L. (*G. Don. l. c.—Roxb. H. B. p.* 44;—*J. Grah. Cat. B. pl. p.* 152.—*Blackw. icon. t.* 211.) *Common Thyme.* ♄ Dry, arid, uncultivated places in the S. W. of Europe. Was introduced into H. C. G. before 1794, but had not fl. up to 1814.

SATUREIA, L. (*Benth. Lab. p.* 351;—*G. Don. o. c. p.* 771.)

1. *hortensis*, L. (*G. Don. l. c.;—Roxb. H. B. p.* 44;—*J. Grah. Cat. B. pl. p.* 152;—*Lam. ill. t.* 504, *f.* 1.—S. viminea, *Burm. fl. ind. p.* 126; not L.) *Garden Savory.* ☉ S. Europe. Fl. small, pale red, Feb. and March; fr. April.

HYSSOPUS, L. (*Benth. Lab. p.* 356;—*G. Don. o. c. p.* 773.)

1. *officinalis*, L. (*G. Don. l. c.—Jacq. austr.* 3, *t.* 254;—*Roxb. H. B. p.* 44.) *Common Hyssop.* ♄ S. Europe. Caucasus. Altai Mountains. Was introduced into H. C. G. in 1796, but had not fl. up to 1814.

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* *Pychnanthemum linifolium*, Pursh. ♃. New Orleans.—*P. nudum*, Nutt. ♃. Carolina.—*Origanum normale*, D. Don. ♃. Nepal.—*Collinsonia tuberosa*, Michx. ♃. Carolina.—*C. scabriuscula*, Ait. ♃. Carolina.—*Cunila leucantha*, Benth. ♃. Mexico.—*C. lythrifolia*, Benth. ♃. Mexico.

E. MELISSËÆ.

(Melissineæ, *Benth. Lab. p.* 365;
G. Don's Mill. dict. 4, *p.* 775.)

HEDEOMA, Pers. (*Benth. Lab. p.* 365;—*G. Don. l. c.*)

1. *nepalense*, Benth. (*Lab. p.* 366;—*G. Don. l. c.*—Cunila nepalensis, *D. Don. pr. fl. nep. p.* 107.—C. Buchanani, *Spreng.*—Melissa nepalensis, *Benth. in Wall. pl. as. rar.* 1, *p.* 66.—Mosla ocimoïdes, *Buch. MSS.*—Lycopus diantherus, *Buch.—Roxb. fl. ind.* 1. *p.* 144; *ed. Carey*, 1, *p.* 145.) ☉ Himalaya. Cashmere. Deyra Dhoon. Fl. small, pale rose-coloured, Feb. and March; fr. H. S.

MELISSA, L. (*Benth. Lab. p.* 383;—*G. Don. o. c. p.* 780.)

1. *Acinos*, Benth. (*Lab. p.* 388;—*G. Don. o. c. p.* 782.—Thymus Acinos, *L.;—E. B.* 6, *t.* 411.—T. heterophyllus, *Poir.*—T. canescens, *Dumort.*—Acinos thymoïdes, *Mönch.*—A. vulgaris, *Pers.*—Calamintha arvensis, *Lam.*) ☉ Corn fields of Europe. Fl. small, purplish-blue, Feb. and March. Has a pleasant, aromatic smell.
2. *repens*, Benth. (*Lab. p.* 392;—*G. Don. o. c. p.* 782.—Thymus repens, *D. Don. pr. fl. nep. p.* 113.—Clinopodium repens, *Roxb. fl. ind.* 3, *p.* 13.) ♃. Nepal. Fl. small, purplish, R. S.
3. *officinalis*, L. (*G. Don. l. c.*—M. graveolens, *Host.*—M. foliosa, *Opiz.*—M. occidentalis, *Rafin.*—M. corsica, *Host.*) *Common Balm.* ♃. S. Europe. Middle Asia. Fl. white or pale yellow, C. S.

* *Hedeoma pulegioïdes*, Pers. ⊙ Carolina.—*H. Drummondi*, Benth. ♄ Mexico.—*Micromeria bracteolata*, Benth. ♃. Carolina.—*M. Brownei*, Benth. ♃. Jamaica.—*M. biflora*, Benth. ♄ Mussooree.—*M. obovata*, Benth. ♄ Jamaica.—*Melissa Nepeta*, L. (Thymus Nepeta, Sm.; E. B. 20, t. 1414.) ♃. S. Europe.—*M. caroliniana*, Benth. ♃. Carolina.—*M. parviflora*, Benth. ♃. Deyra-Dhoon.—*Glechon spathulatus*, Benth. ♄ Brazil.—*G. thymoïdes*, Benth. ♄ Brazil.—*Keithia pilosa*, Benth. ♃. Humid pastures of Brazil.—*Dicerandra linearis*, Benth. ♃. Carolina.

F. SCUTELLARIËÆ.

(Scutellarineæ, *Benth. Lab. p.* 416;
G. Don's Mill. dict. 4, *p.* 789.)

SCUTELLARIA, L. (*Benth. Lab. p.* 419;—*G. Don. o. c. p.* 791.)

1. *discolor*, Colebr. (*Wall. pl. as. rar.* 1, *p.* 66;—*G. Don. l. c.*—S. indica, *D. Don. pr. fl. nep. p.* 109; not L.) ♃. Khassya Mountains. Nepal. Fl. 8 lines, pale blue violet, R. and C. S.
2. *indica*, L. (*G. Don. l. c.* not D. Don.;—*Roxb. fl. ind.* 3, *p.* 24;—*J. Grah. Cat. B. pl. p.* 152.) ⊙ China. Japan. Java. Moluccas. Mahableshwur in the Bombay Presidency. Fl. white. In H. C. G. fl. and fr. C. S. (*Roxb.*)
3. *rivularis*, Wall. (*pl. as. rar.* 2, *p.* 66;—*Benth. Lab. p.* 438;—*G. Don. o. c. p.* 796.—S. peregrina, *Roxb. fl. ind.* 3, *p.* 24. not L.—S. barbata, *D. Don. pr. fl. nep. p.* 109.—S. squamulosa, *Arth. Hamilt. Mon. p.* 35.) ♃. Nepal and China, by sides of rivulets and rivers. Fl. small, blueish, C. S.; fr. H. S.
4. *scandens*, Buch. (*D. Don. pr. fl. nep. p.* 110.—*G. Don. o. c. p.* 797.—S. angulosa, *Benth. in Wall. pl. as. rar. p.* 67.—S. celtidifolia, *Arth. Hamilt. Mon. p.* 27.) ♄ ◡ Nepal. Kemaon. Fl. 8 lines, white sulphur-coloured violet, R. and C. S.

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* *Cleonia lusitanica*, L. ⊙ Portugal. Spain. Barbary.—*Scutellaria purpurascens*, Swz. ♃. W. Indies.—*S. Colebrookiana*, Wall. ♃. Peninsula of India.—*S. pilosa*, Michx. ♃. Carolina.—*S. galericulata*, L.; E. B. 8, t. 523. Europe. Asia. N. America. ♃.—*S. rumicifolia*, H. B. and Kth. ♃ Mexico.—*Perilomia fruticosa*, Schiede and Deppe. ♄ Mexico.

G. PROSTANTHERËÆ, Benth.

(*Lab. p.* 447;—*G. Don's Mill. dict.* 4, *p.* 798.)

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* *Prostanthera ovalifolia*, R. Br. ♄ Tropical New Holland.

H. NEPETËÆ, Benth.

(*Lab. p.* 462;—*G. Don's Mill. dict.* 4, *p.* 802.)

NEPETA, L. (*G. Don. o. c. p.* 803.)

1. *ruderalis*, Buch. (*Benth. in Wall. pl. as. rar.* 1, *p.* 64;—*G. Don. o. c. p.* 806.—Thymus nepetoïdes, *D. Don. pr. fl. nep. p.* 113.—Glechoma erectum, *Buch.*; *Roxb. fl. ind.* 3, *p.* 7.—G. hindostanum, *Roth.*—G. indicum, *Spreng.*) ⊙ Saharunpore. Rajmahl. Hurdwar. Deyra-Dhoon.

Fl. small, purple. In H. C. G. fl. and fr. whole year.—Has a pleasant smell, not unlike that of Balm, and a pungent, bitterish taste. (*Roxb.*)

2. *ciliaris*, Benth. (*Lab. p.* 475;—*G. Don. l. c.*) ♃. Nepal. Cashmere. Fl. small, C. S.

? 3. *madagascariensis*, Lam. (*Spreng. syst.* 2, *p.* 730.) ♃. Madagascar. Has been introduced into H. C. G. Fl. ?

DRACOCEPHALUM, L. (*Benth. Lab. p.* 490;—*G. Don. o. c. p.* 811.)

1. *Moldavica*, L. (*G. Don. o. c. p.* 813.—*Lam. ill. t.* 513, *f.* 1;—*Roxb. H. B. p.* 44.—Moldavica punctata, *Mönch.*) ☉ E. Siberia. Cultivated in India and S. America. Fl. 10 lines, deep blue, with a white tube, and fr. C. S. Plant when bruised emits a fragrance somewhat like that of Citron-oil.

β. *roseum*. Fl. rose-coloured.

2. *Ruyschiana*, L. (*G. Don. o. c. p.* 814; *fl. Don. t.* 121.—D. hyssopifolium, *Mart.*—Zornia linearifolia, *Mönch.*—Ruyschiana spicata, *Mill. dict. No.* 1.—R. glabra, *Amm. ruth. p.* 50.) ♃. Mountains of Europe, and Asiatic Russia. Fl. 12 lines, purplish, C. S.; fr. H. S.

CEDRONELLA, Mönch. (*Benth. Lab. p.* 501;—*G. Don. o. c. p.* 814.)

1. *triphylla*, Mönch. (*G. Don. o. c. p.* 815.—Dracocephalum canariense, *L.*;—*Roxb. H. B. p.* 44.) ♄ America. Canaries ?—Was introduced into H. C. G. in 1799, but had not fl. up to 1814. This is the plant first brought to Europe under the name of *Permenta de Tana*. It is now known under the name of *Balm of Gilead*, which it has obtained from its rich odour on being gently rubbed. (*Mill. dict.*)

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* *Nepeta elata*, Royle. ♃. Simla.—*N. spicata*, Benth. Simla.—*N. discolor*, Royle. ♃. Mussooree.—*N. tuberosa*, L. ♃. S. Spain. Sicily.—*N. distans*, Royle. ♃. Mussooree.—*N. clinopodioïdes*, Royle. ♃. Banks of the Jumna.—*N. leucophylla*, Benth. ♃. Mussooree, Simla.—*N. graciliflora*, Benth. ♃. Hurdwar. Deyra-Dhoon.—*N. Glechoma*, Benth. (Glechoma hederaceum, L.; E. B. 12, t. 873.) ♃. Europe. Asia.—*Dracocephalum peltatum*, L. ☉ Syria.—*D. canescens*, L. ☉ Syria.—*D. thymiflorum*, L. ☉ E. Europe.—*D. nutans*, L. ☉ Siberia.—*Cedronella mexicana*, Benth. ♃. Among corn and in woods of Mexico.

I. STACHYËÆ.

(Stachydeæ, *Benth Lab. p.* 503;
G. Don's Mill. dict. 4, *p.* 815.)

LEONURUS, L. (*Benth. Lab. p.* 517;—*G. Don. o. c. p.* 820.)

1. *Cardiaca*, L. (*G. Don. l. c.*;—*E. B.* 4, *t.* 286.—L. campestris, *Andrz.*—L. illyricus, *Hortul.*—Cardiaca vulgaris, *Mönch.*—C. trilobata, *Lam.*) ♃. ♂. Europe. Middle Asia. Fl. smallish, externally whitish, elegantly stained with paler and darker purple within, C. S.

β. *villosus*, Benth. (*Lab. p.* 518.—L. villosus, *Desf.*—L. condensatus, *Horn.*—L. lacerus, *Lindl.*—L. canescens, *Dumort.*—L. neglectus, *Schrank.*) ♃. ♂. Has been introduced into H. C. G. Fl. ?

2. *sibiricus*, L. (*G. Don. o. c. p.* 821 ;—*Reichb. icon. bot. eur.* 4, *t.* 337 ;—*Sm. exot. bot.* 2, *t.* 94 ;—*Swt. fl. gard.* 3, *t.* 204.—L. tataricus, *Burm. ind.* ;—*Roxb. fl. ind.* 3, *p.* 8 ; not L.—L. heterophyllus, *Swt. brit. fl. gard.* 2, *t.* 197.—Stachys Artemisiæ, *Lour.*) ⊙ Asia. Africa. America. Bengal, (Serampore,) where it is no doubt only naturalized. Fl. 6 lines, deep rose-coloured, inodorous, and fr. nearly the whole year.

ANISOMELES, R. Br. (*Pr. p.* 503 ;—*Benth. Lab. p.* 701 ;—*G. Don. l. c.*)

1. *ovata*, R. Br. (*G. Don. o. c. p.* 822 ;—*Wight. in Hook. bot. misc.* 2, *t.* 19 ;—*J. Grah. Cat. B. pl. p.* 153.—A. disticha, *Heyne*, according to Roth.—Nepeta amboinica, *L. suppl. p.* 273.—N. disticha, *Bl.*—Ballota disticha, *L. Mant. p.* 83.—B. mauritiana, *Pers.*—Ajuga disticha, *Roxb. fl. ind.* 3, *p.* 2.—Marrubium indicum, *Burm. ind. p.* 127 ;—*Burm. Zeyl. t.* 71.—Monarda Zeylanica, *Burm. ind. p.* 12 ;—*Rheed.* 10, *t.* 88.) গোবরা *Gobura.* ⊙ Ceylon. Coromandel. Bombay. Bengal, (Serampore.) Nepal, &c. Fl. middle-sized, reddish-purple, R. and C. S. ; fr. C. S. The whole plant has a strong camphoraceous smell. (*Nimmo.*)
2. *malabarica*, R. Br. (*B. M.* 46, *t.* 2071 ;—*G. Don. l. c.* ;—*J. Grah. Cat. B. pl. p.* 153.—Nepeta malabarica, *L.* ;—Ajuga fruticosa, *Roxb. fl. ind.* 3, *p.* 1.—Stachys malabarica, *Sieb.* ;—*Rheed.* 10, *t.* 93 ?) ♃. Java. Both Peninsulas of India. Mauritius. Fl. large, purplish, faintly fragrant, R. and C. S. ; fr. C. S.

STACHYS, L. (*Benth. Lab. p.* 525 ;—*G. Don. o. c. p.* 823.)

1. *densiflora*, Benth. (*Lab. p.* 532 ;—*G. Don. l. c.*—Betonica Monnieri, *Osb. p.* 146.—B. hirsuta, *L. Mant. p.* 248.—*Murr. comm. gött.* 1779. *vol.* 2, *t.* 3.—*Reichb. icon. bot. eur.* 8, *t.* 714.—B. danica, *Mill. dict. No.* 2.—B. incana, *Ait.* ;—*B. M.* 47, *t.* 2125.—*Reichb. icon. bot. eur.* 8, *t.* 713.—*Barrel. icon. t.* 340.) ♃. Subalpine places in S. Europe. Has been cultivated in the garden here for many years without flowering.
2. *Betonica*, Benth. (*Lab. p.* 532 ;—*G. Don. l. c.*—Betonica officinalis, *L.* ;—*E. B.* 16, *t.* 1142 ;—*Reichb. icon. bot. eur.* 8, *t.* 710.—B. stricta, *Ait.* ;—*Reichb. icon. bot. eur.* 8, *t.* 712.) ♃. Woods, heaths and pastures of Europe and Russian Asia. Has been cultivated for many years in the garden here, but has not fl.
3. *germanica*, L. (*Jacq. austr.* 4, *t.* 319 ;—*E. B.* 12, *t.* 829 ;—*Reichb. icon. bot. eur.* 10, *t.* 950 ;—*B. Reg.* 15, *t.* 1289.—S. lanata, *Crantz.* ; not Jacq.) ♃. Dry, arid, and stony places of Europe, Middle Asia, and N. Africa. Has been cultivated for many years here, but has not fl.
4. *sericea*, Wall. (*pl. as. rar.* 1, *p.* 64 ;—*Benth. Lab. p.* 537 ;—*G. Don. l. c.* ;—S. persica, *Gmel. jun.*) ⊙ Caucasus. Persia. Nepal. Kemaon. Fl. 6 lines, whitish rose-coloured, March ; fr. H. S.
5. *annua*, L. (*G. Don. o. c. p.* 831 ;—*Jacq. austr.* 4, *t.* 360.—S. nervosa, *Gat.*—S. Betonica, *Crantz.*—Betonica annua, *L.* ; *Mönch.*) ⊙ Europe, in corn-fields, and by road-sides. Fl. 7 lines, white, inodorous, March ; fr. H. S.

MARRUBIUM, Tournef. (*Benth. Lab. p.* 585 ;—*G. Don. o. c. p.* 840.)

1. *supinum*, L. (*G. Don. o. c. p.* 842.) ♃. S. Europe. Introduced into H. C. G. in 1801, but had not fl. up to 1814.
2. *vulgare*, L. (*G. Don. l. c.* ;—*E. B.* 6, *t.* 410 ;—M. hamatum, *H. B. and Kth.*—M. germanicum, *Schrank.*) ♃. Europe. Middle Asia. Introduced into H. C. G. in 1807, but had not fl. up to 1814.

BALLOTA, L. (*Benth. Lab. p.* 592 ;—*G. Don. l. c.*)

1. *hispanica*, Benth. (*Lab. p.* 597 ;—*G. Don. o. c. p.* 844.—Marrubium hispanicum, *L. sp.* 816 ; not of his Hb.) ♃. Spain. S. Italy. Sicily. Has been introduced into H. C. G. Fl. ?

ROYLEA, Wall. (*Benth. Lab. p.* 601 ;—*G. Don. o. c. p.* 845.)

1. *elegans*, Wall. (*pl. as. rar.* 1, t. 74 ;—*Benth. l. c.* ;—*G. Don. l. c.*—Phlomis calycina, *Roxb. fl. ind.* 3, *p.* 11.—Ballota cinerea, *D. Don. pr. fl. nep. p.* 111.) ♄ Sirmore. Deyra-Dhoon. Shrinagur. Hurdwar. Fl. small, white pale rose-coloured, C. S.

LEUCAS, R. Br. (*pr. p.* 504 ;—*Benth. Lab. p.* 602 ;—*G. Don. l. c.*)

1. *mollissima*, Wall. (*pl. as. rar.* 1, *p.* 62 ;—*G. Don. o. c. p.* 846.) ♃. Valleys of Nepal. Khassya Mountains. Fl. small, white, R. and C. S. ; fr. C. S.
2. *pilosa*, Benth. (*G. Don. o. c. p.* 847.—Phlomis pilosa, *Roxb. fl. ind.* 3, *p.* 12 ?) ♃. Bengal. Banks of the Irrawaddi. Fl. small, white, R. S. ; fr. C. S.
3. *procumbens*, Desf. (*Mem. mus. par.* 11, *t.* 3, *f.* 2.—*G. Don. l. c.* ;—*J. Grah. Cat. B. pl. p.* 153, excl. L. biflora, R. Br. and Burm. zeyl.—Phlomis biflora, *Roxb. fl. ind.* 3, *p.* 12, excl. syn. Burm. zeyl. not Vahl.—Nepeta indica, *Burm. ind. p.* 126.) শ্বেত বসন্ত *Shwet-busunto.* ♃. Ceylon. Peninsula of India. Bengal, (Serampore.) Bundlekund, &c. Fl. and fr. nearly the whole year.
4. *stelligera*, Wall. (*pl. as. rar.* 1, *p.* 61 ;—*Benth. Lab. p.* 613 ;—*G. Don. o. c. p.* 848.) ♃. Aurungabad. Fl. 6 lines, white, C. S. ; fr. H. S.
5. *aspera*, Spreng. (*Syst.* 2, *p.* 743 ;—*G. Don. o. c. p.* 849 ;—*J. Grah. Cat. B. pl. p.* 153.—L. Plukenetii, *Spreng. ?*—Phlomis aspera, *Willd.*—P. Plukenetii, *Roth. ?*—P. cephalotes, β. *Bl. ?*—P. esculenta, *Roxb. fl. ind.* 3, *p.* 10.—*Rheed.* 10, *t.* 91 ?) ছোট হুলকসা *Chhoto-hulkusa.* ⊙ Mauritius. Bourbon. Java. Philippines. Peninsula of India. Bengal, (Serampore.) Himalayas. Fl. small, white, R. and C. S. ; fr. C. S. This plant possesses a considerable degree of peculiar fragrance. Its leaves are used as a potherb by the natives. (*Roxb.*)
6. *cephalotes*, Spreng. (*Syst.* 2, *p.* 743 ;—*G. Don. l. c.* ;—*J. Grah. Cat. B. pl. p.* 153 ;—*Wight, icon.* 2, *t.* 337.—L. capitata, *Desf. mem. mus.* 11, *t.* 4.—Phlomis cephalotes, *Kön.* ; *Roxb. fl. ind.* 3, *p.* 10 ;—*Roth.*) বড় হুলকসা *Buro-hulkusa.* ⊙ Peninsula of India. Bengal, (Serampore.) Hindoosthan. Nepal. Fl. small, white, R. and C. S. ; fr. C. S.
7. *martinicensis*, R. Br. (*pr. p.* 617 ;—*G. Don. l. c.*—Clinopodium martinicense, *Jacq. amer. t.* 177, *f.* 75.—Phlomis martinicensis, Swz.—

P. caribæa, *Jacq. icon. rar.* 1, *t.* 110.—P. mollis, *Schum.*—Leonurus parviflorus, *Mönch.*) ⊙ Brazil. West Indies. W. Africa. Madagascar. Taong-Dong. Fl. small, white, and fr. C. S.

8. *linifolia*, Spreng. (*Syst.* 2, *p.* 743;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 153.—L. lavandulæfolia, *Sm.*—Phlomis linifolia, *Roth.*—P. zeylanica, *Roxb. fl. ind.* 3, *p.* 9, excl. syn. Rheed;—*Jacq. icon. rar.* 1, *t.* 111; not L.—Leonurus indicus, *Burm. ind. p.* 127.—*Rumph.* 6, *t.* 16, *f.* 1.) হলকসা *Hulkusa.* ⊙ Mauritius. Bourbon. Madagascar. Moluccas. Philippines. Peninsula of India. Bengal, (Serampore.) Fl. 8 lines, white, C. S.; fr. H. S. Has a pleasant, faint, aromatic smell. (*Roxb.*)

Leonotis, R. Br. (*pr. p.* 504;—*Benth. Lab. p.* 618;—*G. Don. o. c. p.* 850.)

1. *nepetæfolia*, R. Br. (*l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 153;—*B. Reg.* 4, *t.* 281.—Phlomis nepetifolia, *L.*;—*Roxb. fl. ind.* 3, *p.* 8.—Leonurus globosus, *Mönch.*—L. nepetifolius, *Mill. dict. No.* 2.) খাজুর চড়ি *Khujoor-churi.* ⊙ Peninsula of India. Bengal, (Serampore.) Silhet, &c. Tropical Africa. W. Indies. Brazil. Fl. large, deep orange-coloured, C. S.; fr. H. S.

2. *Leonurus*, R. Br. (*pr. p.* 504;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 153.—Phlomis Leonurus, *L.*;—*B. M.* 14, *t.* 478;—*Roxb. H. B. p.* 44.—Leonorus grandiflorus, *Mönch.*—L. africanus, *Mill. dict. No.* 1.) ♄ C. G. H. Fl. large, golden-scarlet, with a white yellowish tube, and fr. nearly the whole year.

Holmskjoldia, Retz. (*Benth. Lab. p.* 642;—*G. Don. o. c. p.* 856.)

1. *sanguinea*, Retz. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 153;—*B. Reg.* 9, *t.* 692.—Hastingia coccinea, *Kön.*;—*Sm. exot. bot.* 2, *t.* 80;—*Roxb. fl. ind.* 3, *p.* 65.—Platunium rubrum, *Juss.*) L. ♄ China. Silhet. Hindoosthan. Nepal. Fl. large, orange-scarlet or scarlet, C. S.; fr. H. S.

Colquhounia, Wall. (*Benth. Lab. p.* 644;—*G. Don. o. c. p.* 857.)

1. *coccinea*, Wall. (*Tent. fl. nep.* 1, *t.* 6.—Hastingia scandens, *Roxb. fl. ind.* 3, *p.* 66?—Holmskjoldia scandens, Swt.) ♄ ◡ Nepal. Fl. large, scarlet. Has been introduced into H. C. G. Fl.?

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* *Melittis Melissophyllum*, L.;—E. B. 9, t. 577. ♃. England. S. Europe.—*Physostegia virginiana*, Benth. (Dracocephalum virginianum, L.; B. M. 13, t. 467.) ♃. Humid places of N. America, from Canada to Texas.—*P. truncata*, Benth. ♃. Mexico.—*Macbridea pulchella*, Elliot. ♃. Carolina.—*Lamium amplexicaule*, L.; E. B. 11, t. 770. ⊙ Europe. N. Africa, &c.—*L. purpureum*, L.; E. B. 11, t. 769. ⊙ Europe. Asia.—*L. incisum*, Willd.; E. B. 27, t. 1933. ⊙ Europe.—*L. moschatum*, Mill. ⊙ Levant.—*Anisomeles moschata*, R. Br. ♄ Tropical New Holland.—*A. inodora*, R. Br. ♄ Tropical New Holland.—*Galeopsis Ladanum*, L.; E. B. 13, t. 884. ⊙ Europe. Caucasus.—

G. Tetrahit, L. α. *parviflora*, Benth. (G. Tetrahit, E. B. 3, t. 207.) γ. *grandiflora*, Benth. (G. versicolor. L.; E. B. 10, t. 667.) ⊙ Europe. Middle Asia.—*Stachys splendens*, Wall. Mussooree.—*S. coccinea*, Jacq.; B. M. 18, t. 666. 4. Mexico.—*S. hirsuta*, H. B. Kth. Mexico.—*S. arvensis*, L.;— E. B. 17, t. 1154. ⊙ Europe. N. Africa, Middle Asia.—*Sphacele salviæfolia*, Benth. ♄ S. America.—*Lepechinia spicata*, Willd.; B. R. 15, t. 1292. 4. Mexico.—*Craniotome versicolor*, Reichb. 4 Nepal. Silhet.—*Sideritis lanata*, L. ⊙ S. Europe.—*S. purpurea*, H. F. Talbot. ⊙ Corfu.—*S. romana*, L. ⊙ Italy. Sicily, &c.—*Leonotis ovata*, Spreng. 4. C. G. H.—*L. intermedia*, Lindl; B. R. 10, t. 850. 4. C. G. H.—*Phlomis bracteosa*, Royle. 4. Simla.—*P. lamiifolia*, Royle. 4. Mussooree.—*Eremostachys superba*, Royl. ill. t. 74. 4. Deyra-Dhoon.—*Moluccella lævis*, L.; B. M. 43, t. 1852. ⊙ Syria. Palestine.—*M. spinosa*, L. ⊙ Sicily. Naples. Palestine.—*Achyrospermum densiflorum*, Bl. Java.—*A. fruticosum*, Benth. ♄ Madagascar.—*Colquhounia elegans*, Wall. pl. as. rar. 3, t. 268. ♄ ◡ Taong-Dong.

K. Prasiëæ, Benth.

(*Lab. p.* 646;—*G. Don's Mill. dict.* 4, *p.* 857.)

Gomphostemma, Wall. (*Benth. Lab. p.* 646;—*G. Don. l. c.*)

1. *lucidum*, Wall. (*Benth. Lab. p.* 648;—*G. Don. o. c. p.* 858.) 4. Chappedong, on the coast of Tenasserim. Khassya Mountains. Fl. middle-sized, yellow, R. S.; fr. C. S.
2. *melissæfolium*, Wall. (*Benth. Lab. p.* 649;—*G. Don. l. c.*—Prasium melissifolium, *Roxb. fl. ind.* 3, *p.* 26.) ♄ ◡ Silhet. Fl. largish, yellow, R. S.; fr. C. S.

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* *Gomphostemma strobilinum*, Wall. 4. Prome.—*G. viride*, Wall. 4. Tavoy.—*G. Heyneanum*, Wall. 4. Courtallum.—*G. oblongum*, Wall. ♄ Tavoy.—*G. parviflorum*, Wall. 4. Penang. Khassya Mountains. Nepal.—*G. crinitum*, Wall. 4. Tavoy.—*G. velutinum*, Wall. 4. Khassya Mountains.

L. Ajugëæ.

(Ajugoïdeæ, *Benth. Lab. p.* 657;—
G. Don's Mill. dict. 4, *p.* 860.)

Teucrium, L. (*Benth. Lab. p.* 660;—*G. Don. o. c. p.* 861.)

1. *Leucosceptrum*, (T. macrostachyum, *Wall.*; *Benth. Lab. p.* 663.—Leucosceptrum canum, *Sm. exot. bot. t.* 116.—Clerodendron Leucosceptrum, *D. Don. pr. fl. nep. p.* 103.) ♄ Nepal. Khassya Mountains. Has been introduced into H. C. G. Fl.?
2. *stoloniferum*, Buch. (*Benth. Lab. p.* 674;—*G. Don. o. c. p.* 865;—*Roxb. fl. ind.* 3, *p.* 3?) 4. Khassya Mountains. Taong-Dong. Fl. small, lively pink-coloured. (*Roxb.*) In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
3. *Botrys*, L. (*G. Don. o. c. p.* 867;—*Mill. fig.* 176, *t.* 264, *f.* 1.—Chamædrys Botrys, *Mönch*—Scorodonia Botrys, *Ser.*) ⊙ S. Europe. N.

Africa. Fl. small, purplish. March ; fr. April. The plant has a pleasant aromatic smell. (*Mill. dict.*)

AJUGA, L. (*Benth. Lab. p.* 690 ;—*G. Don. o. c. p.* 870.)

1. *bracteosa*, Wall. (*Benth. Lab. p.* 696 ;—*G. Don. o. c. p.* 872.—A. integrifolia, *Buch.* ;—*D. Don. pr. fl. nep. p.* 108. ♃. Nepal. Fl. small, white, C. S.

? 2. *repens*, Roxb. (*fl. ind.* 3, *p.* 3 ;—*G. Don. o. c. p.* 873.) ♂. Chittagong. In H. C. G. fl. Jan. and. Feb. ; fr. Feb. and March. (*Roxb.*)

CYMARIA, Benth. (*Lab. p.* 705 ;—*G. Don. l. c.*)

1. *elongata*, Benth. (*l. c.* ;—*G. Don. o. c. p.* 874.) ♄ Taong-Dong. Segaen. Fl. small, white, C. S ; fr. H. S.

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* *Amethystea coerulea*, L. ; B. M. 51, t. 2448. ⊙ Asiatic Russia. China.—*Trichostema lineare*, Nutt. ⊙ N. America.—*T. dichotomum*, L. ⊙ N. America.—*Teucrium cubense*, L. ♂. Mexico. W. Indies. Buenos Ayres.—*T. Wallichianum*, Benth. ♃. Silhet.—*T. inflatum*, Swz. ♃. Mexico. Jamaica.—*T. Royleanum*, Wall. ♃. Deyra-Dhoon, Mussooree.—*T. quadrifarium*, Buch. ♃. Silhet. Nepal.—*T. resupinatum*, Desf. ⊙ N. Africa.—*Ajuga lobata*, D. Don. ♃. Nepal.—*A. remota*, Benth. ♃. Deyra-Dhoon.—*A. parviflora*, Benth. ♃. Simla. Mussooree.—*A. decumbens*, Thunb. ♃. Deyra-Dhoon.—*A. macrosperma*, Wall. ♃. Khassya Mountains.—*A. Iva*, Schreb. ⊙ S. Europe. N. Africa.—*A. chia*, Schreb. ⊙ Europe and Asia, along the Mediterranean.—*A. Chamæpithys*, Schreb. ; E. B. 2, t. 77. ⊙ Middle and S. Europe. Tauria. Caucasus.—*Cymaria dichotoma*, Benth. ♄ Taong-Dong. Segaen.

ORDER CXCVIII.—VERBENACEÆ, Juss.—Lindl. Nat. Syst. p. 277.

THE VERVAIN TRIBE.

Trees or shrubs, sometimes herbs, by Lindl. referred to 52 genera. Of these, Spreng. syst. assigns 180 species to S. America, Mexico, and the W. Indies ; 26 to N. Holland and the South Sea Islands ; 16 to N. America ; 10 to China ; 4 to Europe ; 3 to Guinea ; 3 to Japan ; 2 to the Mascarenhas Islands ; 2 to Arabia ; and 1 to the Falkland Islands. In S. Africa have been discovered about 7 species ; (*Harvey*,) and in the E. Indies, according to Spreng. syst., Wall. Cat., and Royl. ill. 153, viz. 40 of *Clerodendron* ; 1 of *Ægiphyla ?* 14 of *Callicarpa* ; 36 of *Premna* ; 26 of *Vitex* ; 8 of *Congea* ; 1 of *Symphorema* ; 8 of *Gmelina* ; 2 of *Tectona* ; 1 of *Phryma* ; 1 of *Streptium* ; 3 of *Verbena* ; 1 of *Stachytarpheta ?* 2 of *Zapania* ; 5 of *Lantana* ; 1 of *Asaphes* ; 1 of *Glossocarya* ; 1 of *Hymenopyramis* ; and 1 of *Avicennia*. Most of these are natives of Nepal, Kemaon, the Khassya Mountains, Assam and both Peninsulas of India. Many have

also been found in the Moluccas, Java, Ceylon and the Philippines. We are unacquainted with *Peronema*, Jack. and *Geunsia*, Bl.

Excepting the Teak-tree, the order is not of much importance either in a medicinal or economical point of view.

A. Viticeæ, Bartl.

(*Lindl. l. c. p.* 278.)

Clerodendron, L. (*Spreng. syst.* 2, *p.* 678, *No.* 2121;—*R. Br. pr. p.* 510.)

1. *Siphonanthus*, R. Rr. (*Spreng. syst.* 2, *p.* 758;—*J. Grah. Cat. B. pl. p.* 157.—Siphonanthus indicus, *L.; Roxb. fl. ind.* 3, *p.* 67;—*Lam. ill. t.* 79, *f.* 1.—Ovieda mitis, *L.*;—*Burm. ind. t.* 43, *f.* 1, 2.) বামণ হাটী *Bamun-hatee.* L. ♄ Prome. Ava. Tavoy. Peninsula of India. Bengal, (Serampore.) Silhet. &c. Fl. more than four inches long, greenish-white, April, May and from Aug. to Jan.; fr. Jan. and Feb.
2. *hastatum*, Wall. (*Cat.*;—*B. Reg.* 16, *t.* 1307;—*B. M.* 62, *t.* 3398.—Siphonanthus hastatus, *Roxb. fl. ind.* 3, *p.* 67.) হাতি কাণা *Hati-kana.* L. ♄ Silhet. Fl. more than 5 inches long, greenish-white, with the mouth of the throat marked with 5 purple dots, April and May; fr. June and July.
3. *phlomoïdes*, L. fil. (*Spreng. syst.* 2, *p.* 760;—*Roxb. fl. ind.* 3, *p.* 57;—*J. Grah. Cat. B. pl. p.* 157.—Volkameria multiflora, *Burm. ind. t.* 45, *f.* 1.) ♁ Coromandel. Deccan. Bengal. Lower Kemaon. Fl. $1\frac{1}{2}$ inch, white, fragrant, R. and C. S.

   β. *rubrum*, Roxb. Mountains of Coromandel. Fl. red.
4. *inerme*, Gärtn. (*fr.* 1, *p.* 271, *t.* 57, *f.* 1;—*R. Br. pr. p.* 367;—*Spreng. syst.* 2, *p.* 758;—*Roxb. fl. ind.* 3, *p.* 58;—*J. Grah. Cat. B. pl. p.* 157.—Volkameria inermis, *L.*;—*Jacq. coll. suppl. p.* 117, *t.* 4, *f.* 1;—*Rheed.* 5, *t.* 49;—*Rumph.* 5, *t.* 46.) বন যঁই *Bun-joeen.* L. ♄ New Holland. China. Moluccas. Both Peninsulas of India. Soonderbuns. Fl. nearly 2 inches, pure-white, with greenish-white tube, R. and C. S.
5. *neriifolium*, Wall. (*Cat.*—Volkameria neriifolia, *Roxb. fl. ind.* 3, *p.* 64.) ♄ Chittagong. Tenasserim. Tavoy. Fl. 12 lines, white, R. S.; fr. Feb. and March. Has a strong premnaceous smell.

   β. *lanceolatum*, Wall. Cat.—Martaban. Tavoy. Fl. smallish, white, C. S.
6. *heterophyllum*, R. Br. (*Spreng. syst.* 2, *p.* 758.—Volkameria heterophylla, *Poir.*) ♁ Mascarenhas Islands. Fl. white, largish, C. S.
7. *emirnense*, Bojer, (*B. M.* 56, *t*, 2925;—*J. Grah. Cat. B. pl. p.* 158.) L. ♄ Province of Emirne in Madagascar. Fl. middle-sized, pale flesh-coloured, almost white, C. S.
8. *nutans*, Wall. (*Cat.*;—*B. M.* 58, *t.* 3049.) ♄ Silhet. Fl. large, white, C. S.; fr. H. S.
9. *viscosum*, Vent. (*Malm. No.* 25;—*B. M.* 43, *t.* 1805;—*B. Reg.* 8, *t.* 629.—C. infortunatum, L.;—*J. Grah. Cat. B. pl. p.* 157.—Volkameria

infortunata, *Roxb. fl. ind.* 3, *p.* 59;—*Rheed.* 2, *t.* 29.) ভাঁট *Bhant.* ♄ Both Peninsulas of India. Bengal, (Serampore.) Oude, &c. Fl. large, white, tinged with rose on the inside, Feb. and March; fr. April and May.

10. *velutinum*, Wall. (*Cat.*—C. molle, *Jack.*; not H. and B.) ♄ Singapore. Has, I think, been introduced into H. C. G.

11. *squamatum*, Vahl. (*Spreng. syst.* 2, *p.* 759;—*B. Reg.* 8, *t.* 69.—Volkameria Kämpferiana, *Jacq. icon. rar.* 3, *t.* 500.—V. Kämpferi, *Willd.*;—*Roxb. fl. ind.* 3, *p.* 60;—*Banks. icon. Kämpf. t.* 58.) ♄ China. Fl. 12 lines, scarlet, H. and R. S.; fr. 0.

12. *dentatum*, Wall. (*Cat.*—Volkameria dentata, *Roxb. fl. ind.* 3, *p.* 61.) ♄ Silhet. Fl. like those of *No.* 11, May and August; fr. 0.

13. *Buchanani*, Wall. (*Cat.*—Volkameria Buchanani, *Roxb. fl. ind.* 3, *p.* 60.) ♄ Moluccas. Fl. like those of *No.* 11 and 12. In H. C. G. fl. R. S.; fr. 0.

14. *urticæfolium*, Wall. (*Cat.*—Volkameria urticifolia, *Roxb. fl. ind.* 3, *p.* 61.) ♃. Pegu. Taong-Dong. Fl. largish, scarlet, August, September and October; fr. 0.

15. *paniculatum*, L. (*Spreng. syst.* 2, *p.* 760;—*B. Reg.* 5, *t.* 406.—C. pyramidale, *Andr. B. Repos.* 10, *t.* 626.) ♄ Penang. Has been introduced into H. C. G. Fl.?

16. *fragrans*, Vent. (*Malm. t.* 70;—*Spreng. syst.* 2, *p.* 760;—*B. Reg.* 1838, *t.* 41.) ♄ China. Chittagong. Taong-Dong. Martaban. Fl. largish, purplish deep rose-coloured, fragrant.

β. *plenum*, (*B. M.* 43, *t.* 1834;—*J. Grah. Cat. B. pl. p.* 157.—Volkameria japonica, *Jacq. hort. schönbr.* 3, *t.* 338.) Fl. double, nearly throughout the year.

17. *glandulosum*, Colebr. (*Wall. Cat.*) ♄ Khassya Mountains. Fl. large, whitish, C. S.

18. *deflexum*, Wall. (*pl. as. rar.* 3, *t.* 215.) ♄ Penang. Singapore. Fl. large, white, rose-coloured. In H. C. G. fl. January.

19. *serratum*, Bl. (*Bijdr. p.* 110;—*J. Grah. Cat. B. pl. p.* 157.—C. macrophyllum, *Sims.*; *B. M.* 52, *t.* 2536.—Volkameria serrata, *L.*;—*Roxb. fl. ind.* 3, *p.* 62.) ♄ Courtallum. Kandalla. The Mahal districts, above the Ghauts. Salsette. Assam. Morung Mountains. Nepal. Fl. large, pale lilac, with the lower lip indigo-coloured, May and June; fr. Sept. Oct. and Nov. The natives eat the flowers and leaves as greens. (*J. Grah.*)

20. *farinosum*, Wall. (*Cat.*—Volkameria farinosa, *Roxb. fl. ind.* 3, *p.* 64.) L. ♄ Silhet. In H. C. G. fl. R. S.; fr. 0. (*Roxb.*)

21. *odoratum*, Buch. (Volkameria odorata, *Roxb. H. B. p.* 46.) ♄ Patna. Sivapur. Oude. Nepal. Kemaon. Fl. middle-sized, bluish, with an indigo-coloured lip, sweet-scented, Jan. and Feb.

β. *albiflorum*. White-flowered.

22. *herbaceum*, Wall. (*Cat.*—Volkameria herbacea, *Roxb. H. B. p.* 46.)

♃. Nepal. In H. C. G. fl. May and June; fr. October and November. (*Roxb.*)

23. *Madœra*, (Volkameria Madœra, *Roxb. H. B. p.* 46.) Cawnpore. Was introduced into H. C. G. in 1800, but had not fl. up to 1814.)

24. *trichotomum*, Thunb. (*Spreng. syst.* 2, *p.* 759;—*Thunb. jap. p.* 256.) ♄ Japan. Fl. white. In H. C. G. Fl.?

25. *roseum*, Wall. In H. C. G.

26. *aculeatum*, J. Grah. (*Cat. B. pl. p.* 157.—Volkameria aculeata, *L.; Spreng. syst.* 2, *p.* 760;—*Jacq. amer.* 185, *t.* 117; *ed. pict. t.* 177;—*Browne jam.* 262, *t.* 20, *f.* 2;—*Plum. spec. ic.* 164, *f.* 1.) ♁ Jamaica. Barbadoes. Fl. small, white, inodorous, and fr. nearly throughout the year.

Callicarpa, L. (*Spreng. syst.* 1, *p.* 368, *No.* 430;—*R. Br. pr. p.* 513.)

1. *arborea*, Roxb. (*fl. ind.* 1, *p.* 390; *ed. Carey*, 1, *p.* 405;—*Spreng. syst.* 1, *p.* 421.) ♁ Moulmein. Chittagong. Goalpara. Morung Mountains. Oude. Nepal. Kamaon. Fl. small, purple-lilac, unpleasantly smelling, C. S.; fr. H. S.

2. *purpurea*, Juss. (*Roxb. fl. ind.* 1, *p.* 395; *ed. Carey*, 1, *p.* 410;—*Spreng. syst.* 1, *p.* 420.—Porphyra dichotoma, *Lour.*) ♄ S. China. Fl. small, pale purple, sweet-scented, May, June and July; fr. R. S.

3. *lanceolaria*, Roxb. (*fl. ind.* 1, *p.* 395; *ed. Carey*, 1, *p.* 409;—*Spreng. syst.* 1, *p.* 420.) ♄ Amherst. Tavoy. Khassya Mountains. Fl. small, pale purplish-lilac, C. S.; fr. H. S.

4. *Heynii*, Roth. (*Spreng. syst.* 1, *p.* 429.—C. acuminata, *Roxb. fl. ind.* 1, *p.* 394; *ed. Carey*, 1, *p.* 408; not Humb.) ♄ Silhet. In H. C. G. fl. April, May and June; fr. C. S. (*Roxb.*)

5. *Reevesii*, Wall. (*Cat.*) ♄ China. Fl. small, purplish, C. S.; fr. H. S.

6. *macrophylla*, Roxb. (*fl. ind.* 1, *p.* 393; *ed. Carey*, 1. *p.* 408;—*Vahl.?*) ♄ Taong-Dong. Chittagong. Silhet. Assam. Shreenagur. Nepal. Fl. small, rose-coloured. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

7. *villosa*, Vahl. (*Spreng. syst. p.* 421;—*Roxb. H. B. p.* 10,) ♁ Silhet. Introduced into H. C. G. in 1810, but had not fl. up to 1814.

8. *incana*, Roxb. (*fl. ind.* 1, *p.* 393; *ed. Carey*, 1, *p.* 407.—C. Roxburghii, *Wall. Cat.*) মথরা *Muthura*. ♄ Bengal, (Serampore.) Fl. small, purple, H. and R. S.; fr. C. S.

9. *cana*, L. (*Spreng. syst.* 1, *p.* 419;—*Roxb. fl. ind.* 1, *p.* 392; *ed. Carey*, 1, *p.* 406;—*B. M.* 47, *t.* 2107.—C. tomentosa, *Lam.*—C. americana, *Lour.*; not L.) ♄ Moluccas. Java. Sumatra. Cochin China. Penang. Malabar Coast. Fl. small, pale-reddish, and fr. throughout the year.

10. *dentata*, Roth. (*Wall. Cat.*) ♄ China. Has not fl. here as yet.

Premna, L. (*Spreng. syst.* 2, *p.* 678, *No.* 2118;—*R. Br. pr. p.* 512.)

1. *esculenta*, Roxb. (*fl. ind.* 3, *p.* 81.) ♄ Chittagong. Fl. small, pale-greenish, and fr. whole year. The natives of Chittagong use the leaves in their diet, as well as in medicine. (*Roxb.*)

2. *barbata*, Wall. Cat. (P. serratifolia, *Roxb. fl. ind.* 3. *p.* 77 ; not L.) ভূত ভেরবী *Bhoot-bheruvee.* L. ♄ Bengal, (Serampore.) Goalpara. Morung. Nepal. Kemaon. Fl. minute, greenish-white, R. S. ; fr. C. S. The whole plant has a heavy, unpleasant smell, nearly the same as some of the other species of this genus. (*Roxb.*)
3. *latifolia*, Roxb. (*fl. ind.* 3, *p.* 76.) ♄ Coromandel. Fl. minute, dirty-yellowish. In H. C. G. fl. April ; fr. Aug. (*Roxb.*) *Wood* white, firm, used for many economical purposes. The *leaves* have a pretty strong, though not disagreeable smell, and are much used in curries by the natives. (*Roxb.*)
4. *longifolia*, Roxb. (*fl. ind.* 3, *p.* 79.) ♄ Bengal. Khassya Mountains. Assam. Fl. small, white. In H. C. G. fl. H. and R. S. ; fr. C. S. (*Roxb.*) Has an agreeable smell. (*Roxb.*)
5. *herbacea*, Roxb. (*fl. ind.* 3, *p.* 80.) ছুঁই জাম *Bhooï-jam.* ♃. Interior of Bengal. Fl. small, pale-whitish-yellow. Feb. and March.
6. *procumbens*, Moon, (*Catal. ceyl. pl.—Wall. Cat.*) L. ♄ Ceylon. Fl. small, greenish-white, nearly the whole year.
7. *spinosa*, Roxb. (*fl. ind.* 3, *p.* 77 ;—*Rumph.* 3, *t.* 134.) ♄ Bengal, (Calcutta. Serampore.) গণিয়ারী *Guniaree.* Fl. small, greenish-yellowish, unpleasantly smelling, R. S. ; fr. C. S.
8. *hircina*, Buch. MSS. (according to Wall.—P. integrifolia, *Roxb. fl. ind.* 3, *p.* 81 ;—*Spreng. syst.* 2, *p.* 755, excl. syn. ;—*J. Grah. Cat. B. pl. p.* 155 ; not L. ;—*Rheed.* 1, *t.* 53. ?—*Rumph.* 3, *t.* 134.) ♄ Mauritius. Sea-shores of Bombay. Moluccas. Goalpara. (*Buch.*) Fl. small, greenish, H. S. ; fr. R. S.
9. *scandens*, Roxb. (*fl. ind.* 3, *p.* 82 ;—*J. Grah. Cat. B. pl. p.* 155.) L. ♄ ◡ Kandalla. Silhet. Fl. small, greenish-yellow, H. S. ; fr. R. S.
10. *grandifolia*, Wall. MSS. In H. C. G. Fl. ?
11. *cordifolia*, Roxb. (*fl. ind.* 3, *p.* 78 ;—*J. Grah. Cat. B. pl. p.* 155.) ♄ Penang. Kandalla. Fl. small, greenish-white, May and June. Leaves not so disagreeably smelling as those of other species. (*Roxb.*)
12. *lævis*, Wall. L. ♄ Doab. Fl. small, greenish-white, and fr. March and April.
13. *coriacea*, L. ♄ Native place ? Fl. small, white, H. S. ; fr. 0.

VITEX, L. (*Spreng. syst.* 2, *p.* 678, *No.* 2120 ;—*R. Br. pr. p.* 511.)

1. *trifolia*, L. (*Spreng. syst.* 2, *p.* 757 ;—*R. Br. l. c. ;—Roxb. fl. ind.* 3, *p.* 69 ;—*B. M.* 47, *t.* 2187 ;—*J. Grah. Cat. B. pl. p.* 155, excl. Rheed. 2, t. 12 ;—*Rheed.* 2, *t.* 11 ;—*Rumph.* 4, *t.* 18.) ♄ Tropical New Holland. Moluccas. Pegu. Coromandel. The Concan and Deccan. Patna. Morung. Fl. smallish, bluish-white, April and May. For the cure of the spleen, the Malays employ the *leaves* given in decoction, and infusion, and formed into a cataplasm, which is applied to the enlarged spleen. (*Roxb.*) The leaves and flowers are rather agreeably heavy-scented.

2. *Negundo*, L. (*Spreng. syst.* 2, *p.* 757;—*Roxb. fl. ind.* 3, *p.* 70.—V. paniculata, *Lam.*;—*Roxb. fl. ind.* 3, *p.* 71;—*Rheed.* 2, *t.* 12;—*Rumph.* 4, *t.* 10.) নিশিন্দা *Nishinda.* ♄ Moluccas. Peninsula of India. Bengal, (Serampore.) Rajmahl. Deyra-Dhoon, &c. Fl. smallish, odoriferous, beautifully blue, H. and R. S.; fr. C. S. A decoction of the aromatic *leaves* helps to form the warm bath for native women after delivery. Bruised they are applied to the temples for the head-ache. Pillows stuffed with them are put under the head to remove a catarrh and the head-ache attending it. (*Roxb.*) For the rest of the medicinal use of this plant, see Azadirachta indica, Juss.
3. *heterophylla*, Roxb. (*fl. ind.* 3, *p.* 75;—*Wall. pl. as. rar.* 3, *t.* 226.) L. ♄ Tippera. Goalpara. Fl. largish, yellowish, H. S.
4. *incisa*, Lam. (*Spreng. syst.* 2, *p.* 757;—*Roxb. fl. ind.* 3, *p.* 72.—V. Negundo, *Curt.*;—*B. M.* 11, *t.* 364; not L.—V. chinensis, *Hb. Banks.*) L. ♄ China. Penang. Nepal. Fl. small, bluish-white, odoriferous. H. S.; fr. C. S.
5. *arborea*, Roxb. (*fl. ind.* 3, *p.* 73;—*Rheed.* 5, *t.* 2.) L. ♄ Circars. Courtallum. Shores of Penang and Singapore. Martaban. Tavoy. Silhet. Fl. small, blue, April; fr. August. *Wood*, when old, chocolate-coloured, very hard and durable, which renders it useful for various purposes. (*Roxb.*)
6. *Leucoxylon*, Roxb. (*H. B. p.* 46; *fl. ind.* 3, *p.* 74;—*Rheed.* 4, *t.* 36.) L. ♄ Ceylon. Both Peninsulas of India. Chittagong. Silhet. Assam. Fl. largish, whitish-yellow, fragrant. In H. C. G. fl. April; fr. March. (*Roxb.*)

Wall. Cat. makes a distinction between V. Leucoxylon and saligna, of the flor. ind. and the same plants of Hort. Beng. The late Dr. Carey, who compiled the latter work from the MSS. of the former, assured us, however, that *he* had meant no difference, and consequently there is none.

7. *saligna*, Roxb. (*H. B. p.* 46.; *fl. ind. p.* 75.) L. ♄ Coromandel. Fl. pure white, middle-sized, inodorous, April; fr. 0.
8. *alata*, Roxb. (*fl. ind.* 3, *p.* 72;—*J. Grah, Cat. B. pl. p.* 155, excl. syn. Spreng.—*Rheed.* 5, *t.* 1.) L. ♄ Hills W. of Panwell. South Mahratta Country. Chittagong. Silhet. Monghir Mountains. Fl. smallish, yellowish, slightly tinged with blue, April and May; fr. August and Sept.
9. *altissima*, Roxb. (*fl. ind.* 3, *p.* 71.—*L.?*) L. ♄ Mountainous forests of Coromandel. Goalpara. Fl. small, white, tinged with blue. In H. C. G. it fl. April and May; fr. August and Sept. (*Roxb.*)
10. *Haynga*, Roxb. (*H. B. p.* 46.) ♄ Chittagong. Introduced into H. C. G. before 1814. Fl.?

Congea, Roxb. (*Spreng. syst.* 2, *p.* 678, *No.* 2115.—Sphenodesme, *Jack.* —Roscoea, *Roxb. fl. ind.* 3, *p.* 54, not Sm.)

1. *pentandra*, Wall. (*Cat.* not *Jack.*—Roscoea pentandra, *Roxb. l. c.*) কঙ্গিয়া *Kungiya*, L. ♄ ◡ Khassya Mountains. Fl. middle-sized, purple, March and April; fr. C. S.

2. *azurea*, Wall. (*Cat.*) ♄ ◡ Martaban. Has not fl. here yet, though introduced 5 years ago.

SYMPHOREMA, Roxb. (*fl. ind.* 2, *p.* 262;—*Spreng. syst.* 2, *p.* 170, *No.* 1418.)

1. *involucratum*, Roxb. (*Corom. pl.* 2, *t.* 186; *fl. ind. l. c.*;—*Spreng. syst.* 2, *p.* 208;—*Wight. icon.* 2, *t.* 362.) L. ♄ ◡ Forests of Coromandel. Fl. small, sessile, white, Feb. March and April; fr. 0.

? 2. *polyandrum*, Wight. (*icon.* 2, *t.* 363.) ♃ Hills at Balaghaut. Fl. 10 lines, pure-white, April; fr. 0.

GMELINA, L. (*Spreng. syst.* 2, *p.* 679, *No.* 2131.)

1. *arborea*, Roxb. (*Corom. pl.* 3, *t.* 246;—*fl. ind.* 3, *p.* 84;—*J. Grah. Cat. B. pl. p.* 158;—*Spreng. syst.* 2, *p.* 765;—*Rheed.* 1, *t.* 41.) গম্ভারী *Gumbharee*. L. ♄ Coromandel. Neelgherry. Concans. Bombay Island. Prome. Trogla River. Saluen. Taong-Dong. Gorukpore. Sukanaghur. Oude, &c. Fl. large, sulphur-coloured, slightly tinged with reddish on the outside of the tube, H. S.; fr. C. S. *Timber* very strong and durable, resisting the influence of water and worms better than teak. (*Roxb.*) ? Roxburgh could not be sure, whether the wood, which he subjected to his experiments, really belonged to this tree. Indeed, he only says, "I conceived it to be this wood." The light wood of this tree is used by the natives of Hindoosthan for making the cylinders of the drums called Dholucks; (Asiat. Res. 6, p. 366,) also for making carriage pannels, as it combines lightness with strength. (*Dr. Gibson.*)

2. *villosa*, Roxb. (*fl. ind.* 3, *p.* 86;—*Rumph.* 2, *t.* 39.) ♃ Moluccas. Penang. Madura. Fl. large, bright-yellow, the whole year; fr. C. S.

3. *asiatica*, L. (*Spreng. syst.* 2, *p.* 765;—*Roxb. fl. ind.* 3, *p.* 85;—*J. Grah. Cat. B. pl. p.* 158, excl. syn. G. parviflora [∋: parvifolia,] Roxb. Corom. and Pluk. and Rumph. 2, t. 39.—*Rumph.* 1, *t.* 40.) L. ♄ Coromandel. Fl. large, bright sulphur, whole year; fr. C. S.

4. *parvifolia*, Roxb. (*H. B. p.* 46;—*Spreng. syst.* 2, *p.* 765.—G. [by a misprint] parviflora, *Roxb. Corom.* 2, *t.* 162; *fl. ind.* 3, *p.* 87.—G. coromandelica, *Burm. ind. p.* 32;—*Pluk. t.* 14, *f.* 4.) L. ♄ Coromandel. Mirzapore. Fl. like those of No. 3, April; fr. C. S.

5. *macrophylla*, Wall. (*Cat.*) Amboyna. In H. C. G. Fl.?

TECTONA, L. (*Spreng, syst.* 1, *p.* 509. *No.* 704.)

1. *grandis*, L. (*Spreng. syst.* 1, *p.* 643.—*Roxb. Corom.* 1, *t.* 6; *fl. ind.* 1, *p.* 600; *ed. Carey*, 2, *p.* 346;—*J. Grah. Cat. B. pl. p.* 158;—*Gärtn. fr.* 1, *p.* 275, *t.* 57, *f.* 6.—Theka, *Lam. ill. t.* 136;—*Rheed.* 4, *t.* 24;—*Rumph.* 3, *t.* 18.) সেগুণ *Segoon. Teak-tree.* L. ♄ Banks of the Taptee. The Concans. Malabar. Siam. Java. Bundlekund. Fl. smallish, white, R. S.; fr. Oct. and Nov.

2. *ternifolia*, Buch. (T. Hamiltoniana, *Wall. pl. as. rar.* 3, *t.* 294.) L. ♄ Banks of the Irrawaddi at Segaen, Loongye, Prome, Ava, &c. Foot of Taong-Dong. Fl. small, pale blue, fragrant, March; fr. 0.

B. VERBENEÆ, Bartl.

(*Lindl. Nat. Syst. p.* 278.)

DURANTA, L. (*Spreng. syst.* 2, *p.* 679, *No.* 2129.)

1. *Plumieri*, L. (*Spreng. syst.* 2, *p.* 764.—*B. Reg.* 3, *t.* 244;—*Jacq. amer.* 186, *t.* 176, *f.* 76; *ic. pict. t.* 261.) ♄ W. Indies. Fl. small, blue, C. S.
2. *Ellisia*, L. (*B. M.* 42, *t.* 1759.) In H. C. G.

PETREA, L. (*Spreng. syst.* 2, *p.* 679.)

1. *volubilis*, L. (*Spreng. syst.* 2, *p.* 761;—*Jacq. amer.* 180, *t.* 114;—*B. M.* 17, *t.* 628.) ♄ ⌒ Vera Cruz. W. Indies. Fl. large, violet. Introduced in 1841.

STREPTIUM, Roxb. (*Spreng. syst.* 2, *p.* 678, *No.* 2116.)

1. *asperum*, Roxb. (*Corom.* 2, *t.* 146; *fl. ind.* 3, *p.* 90;—*Spreng. syst.* 2, *p.* 754;—*J. Grah. Cat. B. pl. p.* 154.—Tortula aspera, *Willd.*—Verbena Forskälii, *Vahl.*—Priva leptostachya, *Pers.*) ♄ Arabia. Coromandel. Old walls at Dapooree. Banks of the Irrawaddi. Fl. small, white, C. S.; fr. H. S.

VERBENA, L. (*Spreng. syst.* 2, *p.* 678, *No.* 2109;—*R. Br. pr. p.* 514.)

1. *bonariensis*, L. (*Spreng. syst.* 2, *p.* 748.—*Dill. elth.* 406, *t.* 300, *f.* 387;—*Roxb. H. B. p.* 4.—V. trichotoma, *Mönch.*) ♄ Banks of the Plata River. Fl. minute, purple, H. S.
2. *officinalis*, L. (*Spreng. syst.* 2, *p.* 750;—*E. B.* 11, *t.* 767;—*R. Br. l. c.*—*Roxb. H. B. p.* 4.—*J. Grah. Cat. B. pl. p.* 154.) *Common Vervain.*) ♃ Europe. Rajmahl. Gondoyera. Oude. Nepal. Taong-Dong. Kemaon. New Holland. Fl. small, pale rose-coloured, C. S.; fr. H. S.

ALOYSIA, Ort. (*Pers. syn.* 2, *p.* 139.)

1. *citriodora*, Ort. (*Pers. l. c.*;—*J. Grah. Cat. B. pl. p.* 154.—Lippia citriodora, *Kth.*;—*Spreng. syst.* 2, *p.* 753.—Verbena triphylla, *L'Herit. stirp.* 1, *p.* 20, *t.* 11;—*B. M.* 11, *t.* 367.) ♄ Peru. Chili. Paraguay. Buenos Ayres. Fl. small, white, with red calices. Has been introduced into H. C. G. Fl.? In Bombay, at Belgaum and Dharwar, it thrives luxuriantly, and is much esteemed for the delightful fragrance of its leaves. (*Law.*)

STACHYTARPHETA, Vahl. (*Spreng. syst.* 1, *p.* 26, *No.* 87.)

1. *jamaicensis*, Vahl. (*Spreng. syst.* 1, *p.* 53;—*B. M.* 44, *t.* 1860;—*J. Grah. Cat. B. pl. p.* 154.—Verbena jamaicensis, *Jacq. obs.* 4, *p.* 6, *t.* 85;—*Roxb. H. B. p.* 4.) ♄ W. Indies. S. America. Fl. small, pale blue, and fr. the whole year.
2. *urticæfolia*, Sims. (*B. M.* 43, *t.* 1848.—Cymburus urticæfolius, *Salisb. par. lond. p.* 53, excl. syn.) ♄ S. America. Fl. small, indigo-coloured, whole year.
3. *orubica*, Vahl. (*Spreng. syst.* 1, *p.* 53.—*Ehret. pict.* 5, *f.* 1;—*J. Grah. Cat. B. pl. p.* 154.) ♄ New Granada. Has been introduced into H. C. G. Fl.?
4. *mutabilis*, Vahl. (*Spreng. syst.* 1, *p.* 53;—*B. M.* 25, *t.* 976.—*J. Grah.*

Cat. B. pl. p. 154.—Zapania mutabilis, *Lam.*—Verbena mutabilis, *Willd.*;—*Jacq. ic. rar.* 2, *t.* 207.—Cymburus mutabilis, *Salisb. par. lond. p.* 49.) ♄ Caracas. Fl. at first deep scarlet, then rose or flesh-coloured, middle-sized, and fr. nearly the whole year.

ZAPANIA, Juss. (*Pers. syn.* 2, *p.* 140;—*R. Br. pr. p.* 514.)

1. *nodiflora*, Lam. (*R. Br. l. c.*;—*J. Grah. Cat. B. pl. p.* 158, excl. syn. Lippia repens, *Spreng.*—Lippia nodiflora, *Rich.*;—*Spreng. syst.* 2, *p.* 751.—S. sarmentosa, *Spreng. o. c. p.* 752.—Verbena cuneata, *Willd. herb.*—V. nodiflora, *L.*; *Roxb. H. B. p.* 4;—*Burm. ind. t.* 6, *f.* 1;—*Rheed.* 10, *t.* 47.) ছোট ওকড়া *Chhoto-okra.* হুঁই ওকড়া *Bhooi-okra.* ♃. N. America. W. and E. Indies. Islands in the Pacific. New Holland. Fl. minute, white, and fr. the whole year.

VERBENA, L.

1. *Aubletii*, L. suppl. (*B. M.* 9, *t.* 308;—*B. Reg.* 4. 264.) ♃. Carolina.
2. *chamædrifolia*, Juss. (*B. Cab.* 16, *t.* 1514.) ♄ Buenos Ayres.
3. *sororia*, Don. (*Prodr. fl. nep.*;—*Roxb. Hort. Beng. p.* 4, not L.) Nepal.

LANTANA, L. (*Spreng. syst.* 2, *p.* 679, *No.* 2126.)

1. *aculeata*, L. (*Spreng. syst.* 2, *p.* 761;—*B. M.* 3, *t.* 96;—*Roxb. H. B. p.* 46;—*J. Grah. Cat. B. pl. p.* 156.) ♄ Jamaica and most W. Indian Islands, where it is called *Wild Sage*, on account of its strongly aromatic smell. Fl. yellowish orange-scarlet, small, and fr. whole year.
2. *nivea*, Vent. (*Spreng. syst.* 2, *p.* 761;—*B. M.* 45, *t.* 1946.) ♄ W. Indies. (*Sm.*)

   β. *mutabilis*, Hook. (*B. M.* 58, *t.* 3110.) ♄ Native country unknown. Fl. smallish, first yellow, then rose-coloured, and fr. the whole year.
3. *odorata*, L. (*Spreng. syst.* 2, *p.* 762;—*Plum. gen.* 32, *ic.* 71, *f.* 2.) ♄ W. Indies. Fl. small, rose-coloured, sweet-scented, C. S.
4. *trifolia*, L. (*Spreng. syst.* 2, *p.* 762;—*B. M.* 35, *t.* 1449;—*Roxb. H. B. p.* 46.) ♄ West Indian Mountains. Fl. smallish, purplish, and fr. the whole year.
5. *indica*, Roxb. (*fl. ind.* 3, *p.* 89;—*J. Grah. Cat. pl. p.* 56.) ♄ Mysore. Common about Dharwar. Fl. small, light purple, inodorous, R. S.; fr. 0.
6. *Gogchana*, Buch. MSS. (L. dubia, *Wall. Cat.*;—*Royle ill. p.* 300, *t.* 73, *f.* 2.) ♄ Banks of the Jumna. Saharunpore. Peer Punjal. Assufghur in Rohilkund. Fl. small, white, aromatic, sweet-scented, and fr. nearly the whole year.
7. *canescens*, Kth. ♄ S. America.
8. *Selloviana*, Lk. and Ott. (*B. M.* 57, *t.* 2987.) ♄ Monte Video.

? HYMENOPYRAMIS, Wall. Cat. (Sine charactere !)

1. *brachiata*, Wall. (*Cat.*) L. ♄ Banks of the Irawaddi. Taong-Dong. Fl. small, white, delightfully fragrant, June and July; fr. August and Sept.

? AVICENNIA, L. (*Spreng. syst.* 2, *p.* 680, *No.* 2143;—*R. Br. pr. p.* 518.)

1. *tomentosa*, L. (*Spreng. syst.* 2, *p.* 768;—*R. Br. l. c.*;—*Roxb. fl. ind.* 3, *p.* 88;—*Wall. pl. as. rar.* 3, *t.* 211;—*J. Grah. Cat. B. pl. p.* 159;—*Jacq. amer. t.* 112, *f.* 2.—A. resinifera, *Forst. pr. no.* 246.—A. africana, *Palis. flor. d'Oware*, 80, *t.* 47.—A. Oepata, *Buch. Herb.*—Sceura marina, *Forsk. descr.* 37.—Oepata, *Rheed.* 4, *t.* 45.—Mangium album, *Rumph.* 3, *t.* 76.) বিনা *Bina*. Between the tropics all over the world. N. Holland. Penang. Singapore. Moluccas. Soonderbuns, &c. Fl. small, dingy-yellow, H. S.; fr. 0. The *bark* is in general use in Rio Janeiro for tanning. (*Lindl.*)

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* *Clerodendrum fortunatum*, L. ♄ Goalpara.—*C. calamitosum*, L. Java.—*C. ligustrinum*, R. Br. ♄ Mauritius.—*C. pubescens*, Lindl.; B. R. 12, t. 1035. ♄ W. Indies.—*C. coromandelianum*, Spreng. ♄ Mauritius.—*C. lividum*, Lindl. B. Reg. 11, t. 945. ♄ China.—*C. tomentosum*, R. Br.; B. M. 37, t. 1518. ♄ Tropical N. Holland.—*C. floribundum*, R. Br. ♄ Tropical N. Holland.—*C. ovatum*, R. Br. ♄ Tropical N. Holland.—*C. coriaceum*, R. Br. ♄ Tropical N. Holland.—*Cornutia pyramidata*, *Callicarpa longifolia*, Lam.; B. Reg. 10, t. 864. ♄ Penang.—*C. lanata*, L. ♄ Neelgherries.—*C. pentandra*, Roxb. ♄ Penang.—*C. ferruginea*, Swz. ♄ Jamaica.—*C. reticulata*, Swz. ♄ Jamaica.—*C. pedunculata*, R. Br. ♄ Tropical N. Holland.—*C. adenanthera*, R. Br. ♄ Tropical N. Holland.—*C. rubella*, Lindl.; B. Reg. 11, t. 883. ♄ China.—*Pityrodia salvifolia*, R. Br. ♄ Tropical N. Holland.—*Premna mucronata*, Roxb. ♄ Morung and Khassya Mountains.—*P. tomentosa*, Willd. ♄ Circar Mountains.—*P. flavescens*, Buch. Goalpara.—*P. cordata*, *acuminata*, *ovata*, *obtusifolia*, R. Br. ♄ Tropical N. Holland.—*P. reticulata*, Juss. ♄ Jamaica.—*Hosta coerulea*, Jacq.; B. Reg. 14, t. 1204. ♄ Mexico.—*Vitex umbrosa*, Swz. ♄ Jamaica.—*V. triflora*, Vhal. ♄ Cayenne.—*V. ovata*, Thunb. ♄ China. Tropical N. Holland.—*V. acuminata*, R. Br. ♄ Tropical N. Holland.—*Congea villosa*, (Roscoea villosa, Roxb.) ♄ ◡ Rangoon.—*Gmelina oblongifolia*, Roxb. L. ♄ East of Bengal.—*Duranta Mutisii*, L. ♄ W. Indies.—*Citharexylum caudatum*, L. ♄ W. Indies.—*C. villosum*, Jacq. ♄ Domingo.—*Amasonia punicea*, Vahl. ♃. Trinidad.—*Taligalia campestris*, Aubl. ♃. Guiana.—*Priva mexicana*, Pers. ♃. Mexico.—*P. Lappulacea*, Pers. ♃. W. Indies.—*Tamonia curassavica*, Aubl. ☉ Curaçao.—*Verbena Lamberti*, Sims.; B. M. 45, t. 2200. ♃. S. America.—*V. bracteosa*, Michx.; B. M. 56, t. 2910. ♂ Mexico.—*V. scabra*, Vahl. ♃. Mexico.—*Stachytarpheta angustifolia*, Vahl. ♄ S. America.—*S. prismatica*, Vahl. ♄ W. Indies.—*Lippia purpurea*, Jacq. ♄ Mexico.—*Lantana mollis*, Grah. ♄ Buenos Ayres.—*L. scabrida*, Ait. ♄ W. Indies.—*L. melissæfolia*, Ait. ♄ W. Indies.—*L. Lockharti*, G. Don. ♄ Trinidad.—*L. stricta*, Swz. ♄ Jamaica.—*L. Radula*, Swz. ♄ W. Indies.—*L. involu-*

crata, L. ♄ W. Indies.—*L. crocea*, Lk. ♄ Jamaica.—*Glossocarya mollis*, Wall. Cat. Sagaen. Towards Taong-Dong.

ORDER CXCIX.—MYOPORACEÆ, Lindl. Nat. Syst. p. 279.

Shrubs, by Lindl., excluding Avicennia, referred to 5 genera, with 21 species, of which 20 are natives of New Holland, and 1 (Bontia) of the W. Indies. "Properties unknown." (*Lindl.*)

MYOPORUM, Banks. (*Spreng. syst.* 2, *p.* 679, *No.* 2133;—*R. Br. pr. p.* 515.)

1. *acuminatum*, R. Br. (*Spreng. syst.* 2, *p.* 766;—*R. Br. l. c.*) ♄ New Holland, near Port Jackson. Fl. smallish, white, at the bottom purple stained, Feb. and March; fr. 0.
2. *debile*, R. Br. (*Spreng. syst.* 2, *p.* 766;—*R. Br. pr. p.* 516;—*B. M.* 43, *t.* 1830.—Pogonia (not R. Br.) debilis, *Andr. B. Repos. t.* 212.) ♄ N. Holland, near Port Jackson. Fl. smallish, pale rose-coloured with a tinge of purple, more or less the whole year.

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* *Myoporum ellipticum*, R. Br. ♄ Tropical N. Holland.—*M. tenuifolium*, R. Br. ♄ Tropical New Holland.—*Bontia daphnoïdes*, L. ♄ W. Indies.

ORDER CC.—SELAGINACEÆ, Lindl. Nat. Syst. p. 279.

Herbs or small shrubs, referred by Harvey to 7 genera, containing numerous species, all natives of S. Africa. "Properties unknown." (*Lindl.*)

HEBENSTREITIA, *L.*, (*Spreng. syst.* 2, *p.* 678, *No.* 2113.)

1. *fruticosa*, Thunb. (*Spreng. syst.* 2, *p.* 754;—*B. M.* 45, *t.* 1970.) ♄ C. G. H. Fl. small, white, C. S.; but very rare; fr. 0.

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* *H. dentata*, L. B. M. 14, t. 483. ♄ C. G. H.

ORDER CCI.—PEDALIACEÆ, Lindl. Nat. Syst. p. 281.

THE OIL-SEED TRIBE.

Herbs, by Lindl. referred to 10 genera, of which Spreng. syst. only enumerates 5 for S. America, Mexico and W. Indies; 2 for New Holland, and 1 for E. Africa. In S. Africa have been found 3 species (*Harvey*); and in the E. Indies as many; viz. 1 of *Pedalium*; and 2 of *Sesamum*. Properties under the species.

MARTYNIA, Houst. (*G. Don's Mill. dict.* 4, *p.* 234.)

1. *diandra*, Glox. (*G. Don. o. c. p.* 235;—*B. Repos.* 9, *t.* 575;—*B. Reg.* 23, *t.* 2001;—*Roxb. H. B. p.* 45;—*J. Grah. Cat. B. pl. p.* 127.—excl. syn. Gärtn. B. M. and G. Don.—M. angulosa, *Lam.*) ⊙ Mexico. Fl. 2 inches, white-pale rose-coloured, stained with orange below on the inside, and stained on the limb above with 5 central dark purple spots, and fr. R. S. Domesticated about Serampore.

PEDALIUM, L. (*G. Don's Mill. dict.* 4, *p.* 235.)

1. *Murex*, L. (*G. Don. o. c. p.* 236;—*Roxb. fl. ind.* 3, *p.* 114;—*J. Grah. Cat. B. pl. p.* 127;—*Gärtn. fr.* 1, *p.* 276, *t.* 58, *f.* 1;—*Rheed.* 10, *t.* 72;—*Burm. ind. t.* 45, *f.* 2.) ⊙ Sea-shores of the Coromandel Coast. At Bombay, in compounds on the Esplanade, near the Marine Lines. Ceylon. Fl. largish, yellow, and fr. R. and C. S. The fresh *leaves* have the property of thickening water, and rendering it mucilaginous. (*J. Grah.*)

SESAMUM, L. (*G. Don's Mill. dict.* 4, *p.* 234.)

1. *indicum*, L. (*G. Don. l. c.;—B. M.* 41, *t.* 1688;—*Endl. ichnogr. t.* 70.—S. orientale, *L.;—G. Don. l. c.;—Gärtn. fr.* 2, *p.* 132, *t.* 110, *f.* 2;—*Roxb. fl. ind.* 3, *p.* 100.—S. trifoliatum, *Mill. dict. No.* 3.—S. luteum, *Retz.*—S. laciniatum, *Willd.*;—*Rheed.* 9, *t.* 54, 55;—*Rumph.* 5, *t.* 76, *f.* 1;—*Burm. zeyl. t.* 38, *f.* 1.) তিল *Til.* ⊙ All over India. Cultivated in Egypt, S. America, W. Indies, the Levant, &c. Fl. largish, white rose-coloured, H. S.; fr. R. S. *Leaves* emollient. *Seeds* contain a fixed oil, as tasteless as Olive oil.

   β. *majus* কৃষ্ণ তিল *Krishno-til.* Of a larger size. Fl. deeper rose-coloured.

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* *Martynia annua*, L. (M. proboscidea, Glox.; B. M. 26, t. 1056.) ⊙ Mexico.—*M. longiflora*, L. ⊙ C. G. H.—*M. lutea*, Lindl.; B. Reg. 11, t. 934. ⊙ Brazil.—*Josephinia grandiflora*, R. Br. ♂ Tropical New Holland.—*Sesamum prostratum*, Retz. ⊙ Coromandel.

ORDER CCII.—BIGNONIACEÆ, R. Br.—Lindl. Nat. Syst. p. 282.

THE TRUMPET-FLOWER TRIBE.

Trees or shrubs, often twining or climbing, by Lindl. referred to 31 genera. Of these, Spreng. syst. enumerates 106 species for S. America, Mexico and the W. Indies; 3 for N. America; 3 for Madagascar; 3 for N. Holland; 2 for Guinea; 1 for Senegal; and 1 for China. In S. Africa have been found 4 species; (*Harvey,*) and in the E. Indies, according to Spreng. syst. Wall. Cat., about 27; viz. 17 of *Bignonia;* (both Peninsulas of India, Assam, Morung, Banks of the Jumna, Moluccas), 6 of *Spathodea,*

(Peninsula of India, One from Pegu); 1 of *Calosanthes;* (Coromandel, The Concans, Cochin China); 1 of *Schrebera;* (Circars); 1 of *Trigonocarpus;* (Amherst, Chappedong); and 1 of *Wightia.* (Nepal). Wall. Cat., B. M., and B. Reg.; add 2 species for Mauritius; 1 for Madagascar; and 1 for New Holland. "Plants of this order little known, except for the great beauty of the flowers." (*Lindl.*)

COLEA, (Bojer.)

1. *mauritiana,* Boj. (B. Colei. B. M. 55, 2817.) Madagascar.

BIGNONIA, Tournef. (*G. Don's. Mill. dict.* 4, *p.* 214.)

1. *undulata,* Roxb. (*fl. ind.* 3, *p.* 101;—*J. Grah, Cat. B. pl. p.* 124.—Tecoma undulata, *G. Don's Mill. dict.* 4, *p.* 223.) ♄ Banks of the Jumna and Chumbul. Cawnpore. Abundant in one locality about Kandesh, Guzerat. Fl. large, orange-coloured, scentless, Feb. and March; fr. June and July.
2. *capreolata,* L. (*G. Don's Mill. dict.* 4, *p.* 217;—*B. M.* 22, *t.* 864.) ♄ ◡ Virginia. Carolina. Fl. largish, externally red, internally sulphur-red, scentless; March.
3. *equinoctialis,* L. (*G. Don. l. c.*) ♄ ◡ Cayenne. Introduced in 1840.
4. *crucigera,* L. (*G. Don's Mill. dict.* 4, *p.* 217;—*Roxb. H. B. p.* 47.) ♄ ◡ Virginia. Mexico. Fl. largish, yellow, whitish beneath. Has not fl. here, though cultivated for many years.
5. *suaveolens,* Roxb. (*fl. ind.* 3, *p.* 104;—*J. Grah. Cat. B. pl. p.* 125.—Tecoma suaveolens, *G. Don's Mill. dict.* 4, *p.* 224.) পাটলী *Patulee* পারুল *Parool.* ♄ Deccan. Bengal. Sukanaghur. Gorukpur. Kheree Jungle. Fl. large, dark dull crimson, fragrant, H. S.; fr. C. S.
6. *chelonoïdes,* L. (*Roxb. fl. ind.* 3, *p.* 106;—*J. Grah. Cat. B. pl. p.* 125, excl. syn. G. Don.—*Rheed.* 6, *t.* 26.) L. ♄ Coromandel. Elephanta. Lanowlee grove, near Kandalla. Jungles in a ravine, near Parr. The Ghauts. Silhet. Assam. Fl. largish, dull yellowish, tinged with brown and orange, May, June and July; fr. Dec. and January.
7. *multijuga,* Wall. (*pl. as. rar.* 1, *t.* 95, 96;—*G. Don's Mill. dict.* 4, *p.* 221.) ♄ Silhet. Penang. Fl. very large, greenish-pale, sulphur-coloured, more or less tinged with dark purple, Feb. and March; fr. C. S.
8. *adenophylla,* Wall. (*G. Don's Mill. dict.* 4, *p.* 221.) ♄ Banks of the Irawaddi. Taong-Dong. Ava. Prome. Has been cultivated here for many years, without fl.
9. *amoena,* Wall. (*pl. as. rar.* 2, *t.* 183;—*G. Don's Mill. dict.* 4, *p.* 222.) ♄ Mauritius. Fl. large, pale rose-coloured, at the throat inside orange, fragrant, H. S.; fr. C. S.
10. *suberosa,* Roxb. (*fl. ind.* 3, *p.* 111;—*J. Grah. Cat. B. pl. p.* 126.—Millingtonia hortensis, *L. fil.;*—*G. Don's Mill. dict.* 4, *p.* 229;—*Roxb. Corom.* 3, *t.* 214.) L. ♄ Tanjore. Segaen. Between Ava and Taong Dong. Fl. large, pure white, fragrant, C. S.; fr. March.

11. *xylocarpa*, Roxb. (*fl. ind.* 3, *p.* 108;—*J. Grah. Cat. B. pl. p.* 125.—Tecoma xylocarpa, *G. Don's Mill. dict.* 4, *p.* 225.) ♄ Neelgherries. Tull Ghaut. Jowar Jungles. Hills about Nagotnah, and on Parr Ghaut. Jungles about Rutnaguiree. Abundant in the Jungles about Daung in Kandesh. Fl. large, white, tinged with yellow, fragrant, March and April; fr. Feb. and March. Tender *fruit* edible. (*Nimmo.*)
12. *fimbriata*, Wall. Moulmein.
13 *cauliflora*, Burke. (*Maurit. Cat.*) ♄ Madagascar, R. S. 1840.
14. *venusta*, Ker. (*B. Reg.* 3, 249.—*B. M.* 46, 2050.) ♄ ◡ Brazil. C. S. 39.
15. *gracilis*, B. Cab. (18, 1705,) S. Amer. C. S. 39.
16. *viridiflora*, B. Cab. (11, 1026.)
17. *echinata*, Jacq. (*amer. p.* 183, *t.* 176, *f.* 52,) C. S. 1840.

Spathodea, Beauv. (*G. Don's. Mill. dict.* 4, *p.* 222.)

1. *uncinata*, Spreng. (*syst.* 2, *p.* 835.—Bignonia uncinata, *Meyer*; —*G. Don's Mill. dict.* 4, *p.* 216.) ♄ ◡ Essequebo. Fl. largish, dull-red, Oct.; fr. 0.
2. *Rheedii*, Spreng. (S. longifolia, *Vent.* ex Lam.—B. spathacea, *L. fil. suppl.* not Roxb. Corom. 2, 24, t. 144.—*fl. ind.* 3, *t.* 103, quo teste. B. falcata, Kön. MSS.) H. S.; fr. C. S.
3. *Roxburghii*, Spreng. (*G. Don's Mill. dict.* 4, *p.* 223.—Bignonia quadrilocularis, *Roxb. Corom.* 2, *t.* 145; *fl. ind.* 3, *p.* 107;—*J. Grah. Cat. B. pl. p.* 125.) L. ♄ Circar Mountains. Malabar Hill. Bombay. Elephanta. The Ghauts. Very common in Paddashapore Jungles, in South Mahratta Country. Kandesh. Fl. large, rose-coloured, fragrant, Feb. and March. *Wood* employed for many purposes by the natives. (*Roxb.*)
4. *crispa*, Wall. (*Cat.*—*G. Don's Mill. dict.* 4, *p.* 222.—S. atrovirens, *Spreng.*—Bignonia crispa, *Roxb. fl. ind.* 3, *p.* 103;—*J. Grah. Cat. B. pl. p.* 125.—B. atrovirens, *Roth.*) ♄ Mysore. Duddi on the Gutpurba. Fl. large, pure white, fragrant, opening in the evening, falling the next morning, May and June; fr. Dec.
5. *stipulata*, Wall. (*pl. as. rar.* 3, *t.* 238;—*G. Don's Mill. dict.* 4, *p.* 223.—Bignonia stipulata, *Roxb. fl. ind.* 3, *p.* 108.) L. ♄ Pegu. Fl. large, sulphur-coloured, of an unpleasant smell, Feb.; fr. April.
6. *serrulata*, Wall. Irawaddi. In H. C. G. Fl.?

Tecoma, Juss. (*G. Don's Mill. Dict.* 4. *p.* 223.)

1. *australis*, R. Br. (*G. D. l. c.*—Bignonia pandorea, *Vent. malm. t.* 43. —B. pandorana, *B. Repos. t.* 86.—B. Pandoræ, *Ker. in. recens. bot. repos.* 97.—*B. M.* 22, *t.* 865.) ♄ ◡ Trop. N. Holland. Fl. largish, white pale-rose, with a dark purple throat. Introduced in 1841.
2. *jasminoïdes*, G. Don. (*Mill. dict.* 4, *p.* 235;—*Lindl. B. Reg.* 23, *p.* 2002.—Bignonia jasminoides, *Cunningh.*) ♄ ◡ N. Holland. Fl. large, white rose-coloured, March and April; fr. 0.

3. *capensis*, Lindl. (*B. Reg.* 13, *t.* 1117;—*G. Don's Mill. dict. l. c.*—Bignonia capensis, *Thunb.*) Fl. large, orange scarlet. Has been introduced into H. C. G. Fl. ?

4. *grandiflora*, Swt. (*G. Don. l. c.*—Bignonia grandiflora, *Thunb.*;—*Roxb. fl. ind.* 3, *p.* 105;—*Bl.*;—*B. M.* 34, *t.* 1398;—*B. Repos.* 8, *t.* 493.—B. chinensis, *Lam.*—Incarvillea grandiflora, *Spreng.*) L. ♄ ◡ Japan, China. Fl. large, orange-coloured, scentless, June, July and August; fr. C. S.

5. *radicans*, Juss. (*G. Don. l. c.*—Bignonia radicans, *L.*;—*B. M.* 14, *t.* 485.—*Roxb. H. B. p.* 47;—*J. Grah. Cat. B. pl. p.* 126.)

β. *minor*. ♄ Carolina. Fl. large,-deep orange, tinged with scarlet, nearly the whole year; fr. 0.

CATALPA, Juss. (*G. Don's Mill. dict.* 4, *p.* 230.)

1. *syringæfolia*, Sims. (*B. M.* 27, *t.* 1094;—*G. Don. l. c.*—Bignonia Catalpa, *L.*;—*Roxb. H. B. p.* 47.) ♄ Banks of the Ohio and Missisippi. Has been cultivated in H. C. G. as well as here, for many years, without fl.

JACARANDA, Juss. (*G. Don's Mill. dict.* 4, *p.* 225.)

1. *mimosæfolia*, D. Don. (*B. Reg.* 8, *t.* 631;—*G. Don. l. c.*—J. ovalifolia, *R. Br. B. M.* 49, *t.* 2327.) 5 Brazil. Fl. large, pale-blue. Introduced in 1841.

CALOSANTHES, Bl. (*Bijdr. p.* 760;—*G. Don's Mill. dict.* 4, *p.* 229.)

1. *indica*, Bl. (*o. c. p.* 761;—*G. Don. l. c.*—Bignonia indica, *L.*;—*Roxb. fl. ind.* 3, *p.* 110;—*J. Grah. Cat. B. pl. p.* 125.—B. pentandra, *Lour.*—Spathodea indica, *Pers.*;—*Rheed.* 1, *t.* 43, 44.) L. ♄ Coromandel. Bombay Presidency, in Mahim woods; Elephanta; Hills throughout the Concans; Jungles in Kandesh. Fl. very large, outside dark purple, inside yellowish-white, June; fr. Jan. and Feb.

AMPHILOPHIUM, Humb. Bonpl. and Kth.

1. *Mutisii*, Kth. Equinoctial America.

SCHREBERA, Roxb. (*G. Don's Mill. dict.* 4, *p.* 231.)

1. *swieteniöides*, Roxb. (*Corom.* 2, *t.* 101; *fl. ind.* 1, *p.* 109; *ed. Carey*, 1, *p* 109;—*J. Grah. Cat. B. pl. p.* 112;—*G. Don. l. c.*) L. ♄ Circar Mountains. Hala hills, W. of the Indus. Tull Ghaut, near Bhewndy. Jowaur. Fl. smallish, variegated with white and brown, during the night very fragrant, Feb. and March. *Wood* of a grey colour, very close-grained, heavy, and durable. It is employed by weavers in many parts of their looms, particularly the beam. It is also used for a variety of other purposes. (*Roxb.*)

? CRESCENTIA, L. (*G. Don's Mill. dict.* 4, *p.* 232.)

1. *Cujete*, L. (*G. Don. l. c.*—*Jacq. amer.* 175, *t.* 111; *ed. pict. p.* 86, *t.* 167;—*Roxb. H. B. p.* 45.) *Common Calabash tree.* ♄ Equinoctial America. Fl. large, variegated with green, purple, red and yellow, not withering, but becoming putrid, and exhaling a nauseous and in-

tolerable smell, R. S.; fr. 0. *Shells* of the fruit, cleansed and dried, are used by the inhabitants of Tropical America for drinking cups. Those of the long, small-fruited kind, are formed into spoons and ladles. The round ones are cut through the middle and used for chocolate-cups; they are frequently large enough to hold a gallon of fluid, serving to boil water in, as they bear fire well. The thicker parts are frequently used for button-moulds in the W. Indies. The Caribs engrave the outside with a number of grotesque figures, which they sometimes colour black and red. The *pulp* is now and then eaten by the negroes, but it is not looked upon as either agreeable, or wholesome; it is, however, much used by way of poultice, and a syrup made out of it is much in request among the natives, in disorders of the breast, in contusions, and inward bruises. The *wood* being very tough and flexible, is fit for the coach-makers, and frequently used for making saddles, stools, and other furniture. (*Mill. dict.*)

2. *alata*, H. B. and Kth. (*G. Don. o. c. p.* 233.) ♄ Mexico. In the Governor General's garden, at Barrackpore, fl. R. S. The flowers are like those of *No.* 1.

? TRIPINNA, Lour. (Tripinnaria, *Pers.*—*G. Don's Mill. dict.* 4, *p.* 233.)

1. *africana*, (Tripinnaria africana, *Spreng. syst.* 2, *p.* 842;—*G. Don. l. c.* —Crescentia pinnata, *Jacq. coll.* 3, *t.* 18.—Tanæcium pinnatum, *Willd.*) L. ♄ Mozambique. Introduced in 1841.

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* *Bignonia pallida*, Lindl.; B. Reg. 12, t. 965 ♄ St. Vincent.—*B. Unguis*, L. ♄ ◡ Barbadoes.—*B. staminea*, Lam. ♄ ◡ St. Domingo.—*B. Chamberlaynii*, Sims.; B. M. 47, t. 2148. ♄ ◡ Brazil.—*B. alliacea*, Swz. ♄ ◡ Guiana.—*B. rigescens*, Jacq. ♄ ◡ Caraccas.—*B. lactiflora*, Vahl. ♄ ◡ St. Cruz.—*B. Leucoxylon*, L. B. Repos. 1, t. 43. ♄ Jamaica.—*B. Telfairiæ*, Bojer; B. M. 57, t. 2976. ♄ Madagascar.—*B. Colei*, Bojer; B. M. 55, t. 2817. ♄ Mauritius. Has been introduced at Bombay.—*Spathodea uncata*, Spreng. (Bignonia uncata, Andr.; B. M. 37, t. 1511.) ♄ ◡ Guiana. W. Indies.—*Tecoma pentaphylla*, Juss. ♄ W. Indies.—*T. stans*, Juss.; B. M. 59, t. 3191. ♄ W. Indies. Mexico. Introduced at Bombay.—*T. radicans*, Juss. *α. major*, (Bignonia radicans, L.; B. M. 14, t. 485.) ♄ Virginia. Carolina. Florida.—*Jacaranda brasiliana*, Lam. ♄ Brazil.—*J. tomentosa*, R. Br.; B. Reg. 13, t. 1103. ♄ Brazil.—*Fredericia speciosa*, Mart. ♄ ◡ Rio Janeiro.—*Ferdinandusa elliptica*, Pohl. ♄ Brazil.—*Astianthus longifolius*, D. Don. ♄ Mexico.—*Chilopsis saligna*, D. Don. ♄ Mexico.—*Wightia gigantea*, Wall. pl. as. rar. 1, t. 81. ♄ ◡ Nepal.—*Catalpa longissima*, Juss. ♄ W. Indies.—*Tourretia lappacea*, Willd. ⊙ ◡ B. M. 66, t. 3749. Peru.—*Crescentia cucurbitina*, L. ♄ Jamaica.—*C. aculeata*, H. B. and Kth. ♄ Mexico.—*Tanæcium parasiticum*, Swz. ♄ ◡ Jamaica.—*T. Jaroba*, Swz. ♄ ◡ Jamaica.

ORDER CCIII.—CYRTANDRACEÆ, Jack.—Lindl. Nat. Syst. p. 283.

Terrestrial or parasitical plants, usually herbaceous and stemless, occasionally caulescent, and sometimes shrubby, referred by R. Br. (*Horsf. pl. jav. rar.* 2, *p.* 114.) to 22 genera: of these 5 species belong to S. Africa and Madagascar; (*Streptocarpus*, Lindl.); 1 to Magellan; 1 to N. China, (*Bœa*, Commers.); 1 to Mexico; (*Glossanthus*, Klein.); 1 to New Zealand; (*Rhabdothamnus*, Cunningh.); 1 to N. S. Wales; (*Fieldia*, Cunningh.). The E. Indian species, amount to about 75 species, referred to the following genera; viz. *Æschynanthus*, (12), *Tromsdorffia*, (1?), *Agalmyla*, (1), *Lysionotus*, (1), *Chirita*, (10), *Didymocarpus*, (22), *Loxocarpus*, (1. Loxonia? incana, Wall. Cat.), *Epithema*, *Stauranthera*, (2), *Monophyllæa*, (1), *Platystemma*, (1), *Rhynchothecum*, (Corysanthera, Wall. Cat.), *Centronia*, (1), *Cyrtandra*, (13), *Whitia*. "Properties unknown." (*Lindl.*)

ÆSCHYNANTHUS, Jack. (*G. Don's Mill. dict.* 4, *p.* 656.)

1. *parasiticus*, Wall. (*Cat.*—Æ. grandiflorus, *G. Don. l. c.*;—*B. M.* 67, *t.* 3843;—*J. Grah. Cat. B. pl. p.* 146.—Trichosporum grandiflorum, *D. Don. pr. fl. nep. p.* 125.—Incarvillea parasitica, *Roxb. Corom.* 2, *t.* 291;—*H. B. p.* 47; *fl. ind.* 3, *p.* 112.) ♃. Paras. The Concans. Khassya Mountains, &c. Fl. large, orange-scarlet, R. S.; fr. Sept. and Oct.

PLATYSTEMMA, Wall. (*G. Don's Mill. dict.* 4, *p.* 664.)

1. *violoïdes*, Wall. (*pl. as. rar.* 2, *t.* 151;—*Royle. ill. t.* 71, *f.* 1;—*G. Don. l. c.*) ⊙ Rocks of Upper Nepal. Fl. largish, violet-blue, in the centre minutely green-rayed, underneath whitish, C. S.

LOXONIA?

1. *alata*, Wall. ♄ North East of Bengal.

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* *Tromsdorffia speciosa*, Blum. ♄ Banks of rivers in Java.—*Æschynanthus oblongifolius*, G. Don. (Incarvillea oblongifolia, Roxb.) ♄ Chittagong.—*Æ. ramosissimus*, Wall. (pl. as. rar. 1, t. 71.) ♄ Paras. Nepal.—*Didymocarpus crinitus*, Jack. ♃. Penang.—*D. reptans*, Jack. ♃. Penang.—*Loxotis obliqua*, Benth. Khassya Mountains.—*L. intermidea*, Benth. Moulmein.—*Stauranthera grandifolia*, Benth. Penang.—*Epithema Brunonis*, Decaisne. (Aikinia Brunonis, Wall. pl. as. rar. 3, t. 228.) ⊙ Timor.

ORDER CCIV.—ACANTHACEÆ, R. Br.—Lindl. Nat. Syst. p. 284.

THE JUSTICIA TRIBE.

Herbs or shrubs, by Nees von Esenbeck and Lindl. Nat. syst. p. 285, referred to 78 genera. Of these, Spreng. syst. and Lindl. l. c. addenda, enumerate about 140 species from S. America, Mexico and Brazil; 24 from

Arabia; 22 from New Holland; 12 from Senegal and Guinea; 9 from the Southern part of N. America; 4 from S. Europe; 4 from Madagascar; 4 from China; 3 from Japan; 2 from the Mascarenhas Islands; 2 from N. Africa; and 1 from the Canaries. In S. Africa have been discovered 50 species, (*Harvey.*) Of E. Indian ones, Nees. v. Esenb. has described 263; viz. 6 of *Thunbergia;* 1 of *Meyenia;* 3 of *Hexacentris;* 1 of *Elytraria;* 1 of *Nelsonia;* 1 of *Cardanthera;* 4 of *Adenosma;* 3 of *Ebermayera;* 1 of *Hemiadelphis;* 6 of *Hygrophila;* 3 of *Dyschoriste;* 9 of *Dipteracanthus;* 1 of *Pealidium;* 6 of *Ruellia;* 1 of *Phlebophyllum;* 1 of *Buteræa;* 1 of *Adenacanthus;* 2 of *Stenosiphonium;* 26 of *Strobilanthes;* 2 of *Æchmanthera;* 14 of *Goldfussia;* 11 of *Asystasia;* 1 of *Echinacanthus;* 1 of *Leptacanthus;* 1 of *Asteracanthus;* 24 of *Barleria;* 1 of *Ætheilema;* 18 of *Lepidagathis;* 1 of *Neuracanthus;* 2 of *Blepharis;* 1 of *Acanthus;* 3 of *Dilivaria;* 3 of *Crossandra;* 3 of *Endopogon;* 1 of *Loxanthus;* 5 of *Phlogacanthus;* 4 of *Cryptophragmium;* 10 of *Rostellaria;* 1 of *Hemichoriste;* 1 of *Graptophyllum;* 7 of *Adhatoda;* 10 of *Gendarussa;* 2 of *Leptostachya;* 1 of *Gymnostachyum;* 14 of *Eranthemum;* 4 of *Justicia;* 3 of *Rhinacanthus;* 1 of *Blechum;* 7 of *Rungia;* 8 of *Dicliptera;* 8 of *Peristrophe;* 2 of *Hypoestes;* 1 of *Rhaphidospora;* 2 of *Erianthera;* 1 of *Haplanthus; and* 6 of *Andrographis.* To these must be added *Eranthemum barlerioïdes,* Roxb.; *Justicia vetellina,* Roxb.; *J. alba,* Roxb.; *J. bivalvis,* Roxb.; *J. latebrosa,* Kön.; *J. verticillata,* Roxb.; *Ruellia comosa,* Roxb.; *R. flava,* Roxb.; *R. cernua,* Roxb.; *R. flagelliformis,* Roxb.; *R. Pavala,* Roxb.; *R. hirsuta,* Roxb.; and *R. suffruticosa,* Roxb. Perhaps *Staurogyne argentea* and *angustifolia,* Wall. may also belong to the order. About 60 of these have been found in the Himalayas, the Khassya Mountains, and Assam; the rest are natives chiefly of Mountainous districts of both Peninsulas of India, Java, the Moluccas, Luçon, and Ceylon. But few properties of this order are known.

A. Thunbergiëæ, Nees.

(*In Wall. pl. as. rar.* 3, *p.* 74.)

Thunbergia, L. (*Nees. o. c. p.* 77.)

1. *grandiflora,* Roxb. (*fl. ind.* 3, *p.* 34;—*Nees. o. c.;*—*J. Grah. Cat. B. pl. p.* 163;—*B. Reg.* 6, *t.* 493;—*B. M.* 50, *t.* 2366.) नील लता *Neelluta.* ♃. ⌣ Bengal, (Serampore.) Silhet. Hindoostan. Assam. Peninsula of India, &c. Fl. very large, blue, with a white tube, and fr. the whole year.
2. *fragrans,* Roxb. (*Corom.* 1, *t.* 67; *fl. ind.* 3, *p.* 33;—*Nees. l. c.;*—*J. Grah. Cat. B. pl. p.* 163;—*B. M.* 44, *t.* 1881.) ♃. ⌣ Circar Mountains. Kennery Jungles. The Ghauts. Hindoosthan. Fl. 15 lines, white, with a sulphur-coloured bottom, inodorous, and fr. the whole year.
3. *alata,* Hook. (*Exot. fl. t.* 177;—*B. M.* 52, t. 2591;—*Nees. o. c. p.* 78.) ♃. ⌣ Zanzibar and Pemba. Fl. 16 lines, ochraceous, with deep purple bottom, and fr. C. S.

4. *angulata*, Hook. (*Exot. fl. t.* 166;—*Nees. l. c.*) ♃. Madagascar. Fl. 1 inch, violet, with a yellow throat, R. S.

MEYENIA, Nees. (*o. c. p.* 78; not Schlecht.)

1. *Hawtayneana*, Nees. (*l. c.*—Thunbergia Hawtayneana, *Wall. tent. fl. nep.* 1, *p.* 49; *pl. as. rar.* 2, *t.* 164.) ♄ ⌒ Neelgherries. Fl. 16 lines, indigo-coloured, with a yellow throat, and fr. the whole year.

β. *albiflora*. Fl. white.

HEXACENTRIS, Nees. (*l. c.*)

1. *coccinea*, Nees. (*l. c.*—Thunbergia coccinea, *Hook. exot. fl. t.* 195;—*D. Don. pr. fl. nep. p.* 120.) ♃. ⌣ Nepal. Khassya Mountains. Fl. largish, intensely red, with a yellow throat, and fr. C. S.

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* *Thunbergia lævis*, Wall. Cat. ♃. ⌣ Dindygul.—*T. tomentosa*, Wall. ♃. ⌣ Neelgherries.—*Hexacentris acuminata*, Nees. Khassya Mountains.—*Mendozia aspera*, Ruiz. and Pav. ♄ Peru.—*Mendozia racemosa*, Ruiz. and Pav. Peru.

B. NELSONIËÆ, Nees.

(*In Wall. pl. as. rar.* 3, *p.* 74.)

ELYTRARIA, Vahl. (*Nees. o. c. p.* 79.)

1. *crenata*, Vahl. (*Nees. l. c.*—E. indica, *Pers.*—Justicia acaulis, *L.*;—*Roxb. Corom.* 2, *t.* 127; *fl. ind.* 1, *p.* 119; *ed. Carey*, 1, *p.* 120.) ♃. Circar Mountains. Madras. Gingie. Madura. Banks of the Jumna, &c. Fl. small, white, R. and C. S.

NELSONIA, R. Br. (*Nees. l. c.*)

1. *tomentosa*, Dietr. (*Nees. l. c.*—Justicia tomentosa, *Roxb. fl. ind.* 1, *p.* 131; *ed. Carey*, 1, *p.* 132.—J. vestita, *Röm. and Sch.*—J. bengalensis, *Spreng.*) পরামুল *Puramool.* ♃. Both Peninsulas of India. Bengal, (Serampore.) Fl. $3\frac{1}{4}$ line, bluish-purple, inodorous, R. and C. S.; fr. C. S.

β. *lamiifolia*, (Justicia lamiifolia, *Kön.*; *Roxb. fl. ind.* 1, *p.* 134; *ed. Carey*, 1, *p.* 135.—Nelsonia lamiifolia, *Spreng.*) ♃. Chappedong. Banks of the Saluen River. Bengal, (Serampore.) Fl. small, variegated with deep and light purple, C. S.; fr. March.

CARDANTHERA, Buchan.

1. *triflora*, Buch. (Ruellia triflora, *Roxb. fl. ind.* 3, *p.* 52.) কালা *Kala.* ⊙ Bengal, (Serampore.) Fl. 8 lines, deeper and lighter blue, with a white reddish tube, and a yellow stained throat, and fr. C. S.

ADENOSMA, R. Br. (*Nees. o. c. p.* 79.)

1. *uliginosa*, R. Br. (*Nees. l. c.*—Ruellia uliginosa, *L.*; *Roxb. fl. ind.* 3, *p.* 52.) ⊙ Coromandel. Tranquebar. Bengal, (Serampore,) &c. Fl. small, blue; and fr. C. S.

ERYTHRACANTHUS, Nees. (*o. c. p.* 80.)

1. *racemosus*, Nees. (*l. c.*—Ruellia racemosa, *Roxb. fl. ind.* 3, *p.* 42.) ♄ Penang. Has been introduced into H. C. G.?

* *Adenosma biplicata*, Nees. Prome.—*Ebermaiera humilis*, Nees. Prome. —*E. thyrsoïdea*, Nees. Moulmein.—*E. axillaris*, Nees. Penang.—*Gymnacanthus petiolaris*, Nees. Mexico.

C. Echmatacanthi, Nees.

(*In Wall. pl. as. rar.* 3, *p.* 75.)

a. Hygrophilëæ, Nees. l. c.

Hemiadelphis, Nees. (*o. c. p.* 80.)

1. *polysperma*, Nees. (*l. c.*—Justicia polysperma, *Roxb. fl. ind.* 1, *p.* 119; *ed. Carey*, 1, *p.* 120.—Ruellia polysperma, *Roth.*—Adenosma polysperma. *Spreng.*) ছোট মেছেতা *Chhoto-mechheta.* ⊙ Bengal, (Serampore.) Silhet. Assam. Oude. Banks of the Irawaddi. Fl. small, pale blue. C. S.; fr. H. S.

Hygrophila, R. Br. (*Nees. l. c.*)

1. *obovata*, Nees. (*o. c. p.* 81.—Ruellia obovata, *Roxb. fl. ind.* 3, *p.* 51; —*J. Grah. Cat. B. pl. p.* 162, excl. syn. Rheed.) ⊙ Bombay. Coromandel. Bengal, (Serampore.) Chittagong. Fl. small, blue, C. S.; fr. Feb. and March.
2. *radicans*, Nees. (*l. c.*—Ruellia radicans, *Wall. Cat.*—R. salicifolia, *Roxb. ? fl. ind.* 3, *p.* 50; not Vahl.) ⊙ Circars. Fl. small, light blue. Silhet. In H. C. G. fl. R. S.; fr. C. S.

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* *Hygrophila phlomöides*, Nees. Silhet.—*H. salicifolia*, Nees. ⊙ Silhet. Assam.—*Geissomeria longiflora*, Lindl; B. Reg. 13, t. 1045. ♄ Brazil.

b. Ruelliëæ, Nees.

(*In Wall. pl. as. rar.* 3, *p.* 75.)

Dipteracanthus, Ness. (*o. c. p.* 81.)

1. *ciliatus*, Nees. (*l. c.*—Ruellia ciliata, *Hornem;—Spreng.*) ♄ Mountains near Prome. Fl. large, blue, C. S.
2. *dejectus*. Nees, (*o. c. p.* 82.—Ruellia ringens, *Roxb. fl. ind.* 3, *p.* 44; not L.—*J. Grah. Cat. B. pl p.* 162, excl. syn. Rheed.) বুড়িগোপানা *Boorigopana.* ♃. Tanjore. The Concans. Bengal, (Serampore.) Fl. large, pale blue, expanding in the evening, drooping the next morning, nearly the whole year; fr. C. S.
3. *patulus*, Nees. (*l. c.*—Ruellia patula, *Jacq. icon. rar.* 1, *t.* 119;—*Roxb. fl. ind.* 3, *p.* 45;—*J. Grah. Cat. B. pl. p.* 162.) ♃. Negapatam. Bombay. Fl. largish, pale blue, C. S. The plant has a weak, but pleasant, fragrant smell. (*Roxb.*)
4. *suffruticosus*, (Ruellia suffruticosa, *Roxb. fl. ind. p.* 53.) ♄ Dinagepore, &c. Fl. 2 inches, pure white, May; fr. 0.

Petalidium, Nees. (*l. c.*)

1. *barlerioïdes*, Nees. (*l. c.*—Ruellia barlerioïdes, *Roth.*—R. bracteata, *Roxb. fl. ind.* 3, *p.* 47;—*J. Grah. Cat. B. pl. p.* 162.) ♄ Sheikpur. Monghir. Deyra-Dhoon. The Ghauts. Hills in the vicinity of Panwell. Fl. large, white, with a brownish throat, Feb. and March.

Ruellia, L. (*Nees. l. c.*)

1. *sarmentosa*, Nees. (*o. c. p.* 83.—Ruellia latebrosa, *Roxb. fl. ind.* 3, *p.* 46; not Roth) ♃. Bengal, (Serampore,) &c. Fl. small, light blue, C. S.; fr. Feb. and March.
2. *hirta*, Vahl. (*Roxb. fl. ind.* 3, *p.* 46.) ♃. Circars. Fl. large, bluish-purple. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)
? 3. *comosa*, Roxb. (*fl. ind.* 3, *p.* 43.) L. ♄ Moluccas. Fl. large purple. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
? 4. *cernua*, Roxb. (*fl. ind.* 3, *p.* 45; not Wall. Cat., and consequently not Dyschoriste cernua, *Nees.*;—*Rumph.* 6, *t.* 23, *f.* 1; according to Roxb.) ♄ Mysore. Fl. small, pale pink. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
? 5. *maculata*, Wall. (*pl. as. rar.* 3, *t.* 250.) ♄ Khassya Mountains. Fl. large, pale blue. In H. C. G.

Buteræa, Nees. (*o. c. p.* 83.)

1. *ulmifolia*, Nees. (*o. c. p.* 84.) ♄ Native place not mentioned. Fl. middle-sized, pale violet. Has been cultivated in H. C. G.

Strobilanthes, Bl. (*Nees. l. c.*)

1. *scabra*, Nees. (*l. c.*) ♄ Prome. Khassya Mountains. Fl 14 lines, sulphur-coloured, March; fr. H. S.
2. *callosa*, Nees. (*o. c. p.* 85.) ♄ Nagpur. Fl. large, pale blue, C. S.
3. *Sabiniana*, Nees. (*o. c. p.* 86;—*B. Reg.* 15, *t.* 1238;—*B. M.* 63, *t.* 3517.) ♄ Khassya Mountains. Fl. large, lilac, C. S.
4. *auriculata*, Nees. (*Wall. pl. as. rar.* 3, *t.* 295.) ♄ Nepal. Fl. large, pale blue, externally whitish, C. S.
5. *lævigata*, Wall. MSS. ♄ Khassya Hills. In H. C. G.
6. *elegans*, Wall. MSS. ♄ Munipore.

Goldfussia, Nees. (*o. c. p.* 87.)

1. *lamiifolia* Nees. (*o. c. p.* 88.) ♄ Nepal. Fl. large, purplish blue, C. S.
2. *glomerata*, Nees. (*l. c.*) ♄ Khassya Mountains. Fl. 2 inches, bluish-violet. C. S.
3. *anisophylla*, Nees. (*l. c.*—*B. M.* 62, *t.* 3404.—Ruellia anisophylla, *Hook. exot. fl. t.* 191; *B. Reg.* 11, *t.* 955.) ♄ Khassya Mountains. Fl. $1\frac{1}{4}$ inch, pale purplish blue, with a yellow base, C. S.
4. *isophylla*, Nees. (*l. c.*) ♄ Khassya Mountains. Fl. 14 lines, pale purplish blue, C. S.

Asystasia, Bl.* (*Nees. o. c. p.* 89.)

1. *coromandeliana*, Nees. (*l. c.*—Justicia gangetica, *L. amœn.* 4, *p.* 290, excl. all. syn. ?—Ruellia intrusa, *Vahl.*—R. secunda, *Vahl.*—R. zeylanica, *Kön.*; *Roxb. fl. ind.* 3, *p.* 42;—*J. Grah. Cat. B. pl. p.* 161.—*Rheed.* 9, *t.* 45.) ♄ Common about hedges in India. Fl. 16 lines, purplish blue, and fr. C. S.

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* *Dyschoriste littoralis*, Nees.; Wight icon. 2, t. 447. (Justicia madurensis, Burm. ind. t. 4, f. 3.) ♄ Madura. Negapatam.—*Dipteracanthus*

prostratus, Nees. Negapatam.—*Ruellia quadrifaria*, Wall. ♄ Taong-Dong.—*R. ? elegans*, Hook; B. M. 62, t. 3389. ♃. The Ghauts.—*R. ? ciliatiflora*, Hook. B. M. 66, t. 3718. ♃. Buenos Ayres.—*R. ? formosa*, Andr.; B. M. 34, t. 1400. ♄ Brazil.—*R. ? rubricaulis*, Cav. ♃. Mexico.—*R. ? ovata*, Cav. ♃. Mexico.—*R. ? tuberosa*, L. ♃. Jamaica.—*R. ? lactea*, Cav. ♃. Mexico.—*R. ? fulgida*, Andr.; B. Repos. t. 527. ♃. Barbadoes.—*Phlebophyllum Kunthianum*, Nees.; Wight icon. 2, t. 448. ♄ Neelgherries.—*Adenacanthus acuminatus*, Nees. ♃. Burma.—*Stenosiphonium subsericeum*, Nees. Madras.—*Strobilanthes rosea*, Nees. ♄ Taong-Dong.—*S. glaucescens*, Nees. ♄ Prome.—*S. barbata*, Nees. ♄ Courtallum.—*S. fimbriata*, Nees. ♄ Khassya Mountains.—*S. echinata*, Nees. ♄ Khassya Mountains.—*S. ciliata*, Nees. ♄ Courtallum.—*S. glutinosa*, Nees. ♄ Nepal.—*S. collina*, Nees. ♄ Penang.—*S. Wallichii*, Nees. (Ruellia alata, Wall. pl. as. rar. 1, t. 31.) ⊙ Nepal.—*S. Brunoniana*, Nees. ♄ Khassya Mountains.—*Æchmanthera tomentosa*, Nees. ♃. Nepal.—*Æ. gossypina*, Nees. (Ruellia gossypina, Wall. pl. as. rar, 1, t. 42.) ♄ Deyra-Dhoon.—*Goldfussia extensa*, Nees. ♄ Khassya Mountains.—*G. pentastemonoïdes*, Nees. ♄ Nepal.—*G. colorata*, Nees. ♃. Borjora.—*Asystasia Kunthiana*, Nees. ♄ Penang.—*A. macrocarpa*, Nees. ♄ Nepal.—*A. Neesiana*, Nees. (Ruellia Neesiana, Wall. pl. as. rar. 1, t. 83.) ♄ Khassya Mountains.—*Echinacanthus attenuatus*, Nees. ♃. Nepal.

c. Barleriëæ, Nees.

(*In Wall. pl. as. rar.* 3, *p.* 75.)

ASTERACANTHA, Nees. (*o. c. p.* 90.)

1. *longifolia*, Nees. (*l. c.*—*Wight. icon.* 2, *t.* 449.—Barleria longifolia, *L.*; —*J. Grah. Cat. B. pl. p.* 161.—Ruellia longifolia, *Roxb. fl. ind.* 3, *p.* 50;—*Rheed.* 2, *t.* 45.) কাঁটা কুলিকা *Kanta-koolika.* ⊙ ♂. Both Peninsulas of India. Bengal, (Serampore). Monghir. Oude. Nepal. Fl. 16 lines, pale blue, with the tube and throat white ochraceous, R. S.; fr. C. S. Considered tonic, and diuretic.

BARLERIA, L. (*Nees. o. c. p.* 91.)

1. *hirsuta*, Nees. (*l. c.*) ♄ Prome. Fl. 2 inches, blue, C. S.
2. *polytricha*, Wall (*pl. as. rar.* 1, *t.* 82;—*Nees. l. c.*) ♄ Banks of the Irawaddi. Fl. 2¼ inches, pale blue, C. S.; fr. Feb.
3. *coerulea*, Roxb. (*fl. ind.* 3, *p.* 39;—*Nees. l. c.*) ♄ Banks of the Irawaddi. Nepal. Fl. 2 inches, pale blue, C. S.; fr. Feb. and March.
4. *dichotoma*, Roxb. (*fl. ind.* 3, *p.* 39;—*Nees. l. c;*—*B. Cab.* 4, *t.* 360.) শাদা জাতি *Sada-jati.* ♄ Banks of the Irawaddi. Prome. Melloon. Taong-Dong. Penang. Bengal, (Serampore. Patna). Fl. 2 inches, pure white, C. S; fr. Feb. and March.
5. *ciliata*, Roxb. (*fl. ind.* 3, *p.* 38;—*Nees. o. c. p.* 92.) ♄ Bengal. Hindoosthan. Himalayas. Fl. nearly 2 inches, purplish-pink, downwards rosy streaked, C. S.; fr. Feb. and March.
6. *cristata*, L. (*Roxb. fl. ind.* 3, *p.* 37;—*Nees. l. c;*—*B. Cab.* 4, *t.* 344;—

B. M. 39, *t.* 1615;—*Wight. icon.* 2, *t.* 453;—*J. Grah. Cat. B. pl. p.* 160.) ♄ Negapatam. Nepal, &c. Fl. $2\frac{1}{4}$ inches, bright blue, with a dash of purple, Oct. and Nov.; fr. Feb. and March.

β. *rosea*, (*Roxb. H. B. p.* 45.) ♄ Cawnpore. Fl. rose-coloured.

7. *Prionitis*, L. (*Nees, o. c. p.* 93;—*Roxb. fl. ind.* 3, *p.* 36;—*Wight. icon.* 2, *t.* 452;—*J. Grah. Cat. B. pl. p.* 160; excl. syn. Rumph.—Justicia appressa, *Forsk.*;—*Rheed.* 9, *t.* 41.) কাঁটা জাতি *Kanta-jati*. ♄ Arabia. Java. Ceylon. Both Peninsulas of India. Bengal, (Serampore). Silhet. Assam. Hurdwar, &c. Fl. $1\frac{1}{2}$ inch, bright orange, and fr. C. and H. S.

8. *obovata*, L. (B. buxifolia, *Roxb. fl. ind.* 3, *p.* 37, not L.) ♄ Mysore. Fl. 14 lines, pale rosy lilac, C. S.

9. *bispinosa*, (*Nees. l. c.* not Vahl, excl. some synonymes.) ♄ Arabia. Courtallum. Fl. like those of *No.* 8, C. S.

ÆTHEILEMA, R. Br. (*Nees. l. c.*)

1. *reniforme*, Nees. (*l. c.*—Ruellia imbricata, *Vahl.* excl. syn. Forsk;—*Roxb. fl. ind.* 3, *p.* 48.—R. dorsiflora, *Retz.*) ♃ Prome. Taong-Dong. Bengal, (Serampore). Silhet. Fl. small, white, R. and C. S.; fr. C. S.

LEPIDAGATHIS, Willd. (*Nees. o. c. p.* 95.)

1. *fasciculata*, Nees. (*l. c.*—Ruellia fasciculata, *Vahl.*;—*Roxb. fl. ind.* 3, *p.* 48.) ♄ Ceylon. Both Peninsulas of India. Fl. small, white. In H. C. G. fl. Feb. and March; fr. H. S. (*Roxb.*)

2. *hyalina*, Nees. (*l. c.*—Ruellia dependens, *Roxb. fl. ind.* 3, *p.* 49.) ♄ Prome. Amherst. Chappedong. Mysore. Assam. Fl. 5 lines, white, dotted with brown, R. and C. S.; fr. C. S.

3. *ustulata*, Nees. (*l. c.*) ♄ Gorukpur. Sukanaghur. Fl. like those of *No.* 2, C. S.; fr. Feb. and March.

4. *cristata*, Willd. (*Nees. o. c. p.* 96;—*Roxb. fl. ind.* 3, *p.* 53;—*Wight. icon.* 2, *t.* 455.—*J. Grah. Cat. B. pl. p.* 160.) ♃ Coromandel. Bombay. Banks of the Jumna. Fl. small, rose-coloured. Was introduced into H. C. G. in 1803, but had not fl. up to 1814.

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* *Barleria nitida*, Nees.; Wight. icon. 2, t. 454. ♄ Dindygul. Madura.—*B. involucrata*, Wight. ♃. Neelgherries.—*B. tomentosa*, Roth. ♄ Negapatam.—*B. longiflora*, L. ♄ Prome. Vellore. Travancore.—*B. Hystrix*, L.; Rumph. auct. t. 13. ♄ Moluccas. Segaen. Prome.—*B. nepalensis*, Nees. ♄ Nepal.—*B. nuda*, Nees. ♄ Silhet.—*B. noctiflora*, L. ♄ Courtallum. Ceylon.—*B. solanifolia*, L. ♄ W. Indies.—*Lepidagathis mucronata*. Nees. ♃. Coromandel.—*L. scariosa*, Nees.;—Wight icon. 2, t. 457. ♄ Dindygul. Madura.—*L. dulcis*, Nees. ♃. Prome.—*L. pungens*, Nees. ♄ Tinnevelly.—*Aphelandra cristata*, R. Br.; B. Reg. 18, t. 1477. ♄ W. Indies.—*Neuracanthus tetragonostachyus*, Nees. ♄ Prome. Taong-Dong.

d. Acantheæ, Nees.

(*In Wall. pl. as. rar.* 3, *p.* 76.)

BLEPHARIS, Juss. (*Nees. o. c. p.* 97.)

1. *boerhaaviæfolia*, Juss. (*Nees. l. c.*—*Wight. icon.* 2, *t.* 458.)

β. *maderaspatensis*, Nees. (Acanthus maderaspatensis, *L.*;—*Roxb. fl. ind.* 3, *p.* 33.) ♃ Madras. Banks of the Jumna. Fl. largish, blue, C. S.; fr. H. S.

ACANTHUS, L. (*Nees. o. c. p.* 98.)

1. *leucostachyus*, Wall. (*Nees. l. c.*) ♄ Khassya Mountains. Fl. largish, white. Has been introduced into H. C. G. Fl.?

DILIVARIA, Juss. (*Nees. l. c.*)

1. *ilicifolia*, Juss. (*Nees. l. c.*;—*Wight. icon.* 2, *t.* 459.—Acanthus ilicifolius, *L.*;—*Roxb. fl. ind.* 3, *p.* 32;—*J. Grah. Cat. B. pl. p.* 159, excl. syn. Rumph.—*Rheed.* 2, *t.* 48.) হাকুচ কাঁটা *Hakooch-kanta.* ♄ Sea-shores of India and New Holland. (Soonderbuns.) Fl. large, blue, R. and C. S.; fr. C. S.

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* *Blepharis molluginifolia*, Juss. (Acanthus repens, Vahl.) ♃. Madras. Bombay. Monghir.—*B. boerhaaviæfolia*, *a. ciliaris*, Nees. (Burm. ind. t. 42, f. 2.) ⊙ Ceylon. Bombay. Tanjore. Madras. Chingliput. Banks of the Irawaddi.—*Acanthus spinosus*, L.; B. M. 43, t. 1808. ♃. Italy. —*Blepharacanthus capensis*, Nees. ♃. C. G. H.—*Dilivaria ebracteata*, Juss. (Rumph. 6, t. 71, f. 1.) ♄ Moluccas. Chappedong.—*D. volubilis*, Nees. (Acanthus volubilis, Wall. pl. as. rar. 2, t. 172; Rumph. 6, t. 72, f. 2.) ♄ ⌒ Moluccas. Java.

e. Justiciëæ, Nees.

(*In Wall. pl. as. rar.* 3, *p.* 76.)

CROSSANDRA, Salisb. (*Nees. o. c. p.* 98.)

1. *infundibuliformis*, Nees. (*l. c.*—*Wight. icon.* 2, *t.* 461.—C. undulæfolia, *Salisb.*—*B. M.* 47, *t.* 2186;—*B. Reg.* 1, *t.* 69.—Justicia infundibuliformis, *L.*—Ruellia infundibuliformis, *Andr.*; *B. Repos.* 8, *t.* 542;—*Roxb. fl. ind.* 3, *p.* 41;—*J. Grah. Cat. B. pl. p.* 161.—Harrachia speciosa, *Jacq. ecl. t.* 21;—*Blum.*;—*Rheed.* 9, *t.* 62.) ♄ Common in flower-pots about temples, and in gardens. Fl. large, copper-coloured, whole year; fr. C. S.

β. *aurantiaca.* ♄ Singapore. Madura. Nepal. Fl. orange-coloured, large, whole year; fr. C. S.

PHLOGACANTHUS, Nees. (*o. c. p.* 99.)

1. *curviflorus*, Nees. (*l. c.*—*B. M.* 66, *t.* 2783.—Justicia curviflora, *Wall. pl. as. rar.* 2, *t.* 112.) ♄ Khassya Mountains. Fl. 2 inches, reddish-orange, Nov. and Dec.; fr. 0.
2. *thyrsiflorus*, Nees. (*l. c.*—Justicia thyrsiflora, *Roxb. fl. ind.* 1, *p.* 114; *ed. Carey*, 1, *p.* 116.) ♄ Interior of Bengal. Malung. Khassya Mountains. Nepal. Oude. Fl. 1 inch, deep orange, Jan. and Feb.; fr. April and May.
4. *guttatus*, Nees. (*l. c.*—Justicia guttata, *Wall. pl. as. rar.* 1, *t.* 28;—*B. Reg.* 16, *t.* 1334.) ♄ Khassya Mountains. Fl. 1 inch, very pale greenish, stained with blood-red spots, Dec. and Jan.
5. *asperulus*, Nees. (*l. c.*—Justicia asperula, *Wall.*—J. quadrangularis,

Hook;—B. M. 55, *t.* 2845;—*B. Reg.* 16, *t.* 1340.—Justicia vitellina, *Roxb. fl. ind.* 1, *t.* 117.) ♄ Khassya Mountains. Fl. 6 lines, pale rose-coloured, Feb.

CRYPTOPHRAGMIUM, Nees. (*o. c. p.* 100.)

1. *venustum.* Nees. (*o. c.—B. M.* 60, *t.* 3208.—Justicia venusta, *Wall. pl. as. rar.* 1, *t.* 66;—*B. Reg.* 16, *t.* 1380.) ♄ Khassya Mountains. Fl. indigo-coloured, 13 lines, beginning of C. S.; fr. 0.

ROSTELLARIA, Nees. (*l. c.*)

1. *procumbens,* Nees. (*o. c. p.* 101.—Justicia procumbens, *L.;—Roxb. fl. ind.* 1, *p.* 132; *ed. Carey,* 1, *p.* 133.) ♃. Both Peninsulas of India. Fl. small, rose-coloured, and fr. C. S.
2. *quinquangularis,* Nees. (*l. c.*—Justicia quinquangularis, *Kön.;—Roxb. fl. ind.* 1, *p.* 133; *ed. Carey,* 1, *p.* 134.) ♃. Coromandel. Bengal, (Serampore), Rajmahl. Nepal. Fl. small, white-rose-coloured, R. and C. S.; fr. C. S.
3. *glaberrima.* ♃. Serampore. Fl. small, rosy-white, R. and C. S.; fr. C. S.
4 *Vahlii,* Nees, (*o. c. p.* 102.—Justicia Vahlii, *Roth.*—J. Vahliana, *Röm. and Sch.*—J. diffusa, *Vahl.* excl. syn. Willd.) Southern India.
5. *mollissima,* Nees.

   β. *graminea,* (Justicia graminea, (juncea), *Kön.;—Roxb. fl. ind.* 1, *p.* 133; *ed. Carey.* 1, *p.* 134.) ♃. Coromandel. Bengal. Fl. small, rosy-white, C. S.

GRAPTOPHYLLUM, Nees. (*l. c.*)

1. *hortense,* Nees. (*l. c.*—Justicia picta, *L.;—Roxb. fl. ind.* 1, *p.* 117; *ed. Carey,* 1, *p.* 118;—*B. Reg.* 15, *t.* 1227;—*J. Grah. Cat. B. pl. p.* 163;—*Rheed.* 6, *t.* 60;—*Rumph.* 4, *t.* 30.) ♄ Java. Commonly cultivated in gardens. Fl. 1½ inch, crimson, more or less the whole year.

   β. *lurido-sanguineum,* (Justicia picta, *L.* var. lurido-sanguinea, *Sims.; B. M.* 44, *t.* 1870.) Larger. Leaves dark-blood-coloured. Fl. larger.

ADHATODA, Herm. (*Nees. l. c.*)

1. *Betonica,* Nees. (*o. c. p.* 103.—Justicia Betonica, *L.;—Roxb. fl. ind.* 1, *p.* 128; *ed. Carey,* 1, *p.* 129;—*J. Grah. Cat. B. pl. p.* 165.—J. Pseudo-Betonica, *Roth.*—J. ochroleuca, *Bl.;—Rheed.* 2, *t.* 21.) ♃. Coromandel. Bombay. The Concans. Prome. Monghir Hills, &c. Fl. 7 lines, whitish, tinged with pale rose and purple, C. S.; fr. Feb. and March.
2. *ramosissima,* Nees. (*l. c.*—Justicia ramosissima, *Roxb. fl. ind.* 1, *p.* 129; *ed. Carey,* 1, *p.* 130,—*J. Grah. Cat. B. pl. p.* 165.) ♃. Coromandel. The high Table-land, E. of Mahableshwur. Fl. 6 lines, white, slightly tinged with purple, C. S.; fr. Feb. and March.
3. *Vasica,* Nees. (*l. c.*—Justicia Adhatoda, *L.;—Roxb. fl. ind.* 1, *p.* 126; *ed. Carey,* 1, *p.* 127;—*J. Grah. Cat. B. pl. p.* 164;—*B. M.* 22, *t.* 861.) বাকস *Bakus.* L. ♄ Java. Ceylon. Both Peninsulas of India. Bengal.

(Serampore.) Silhet. Nepal, &c. Fl. 14 lines, white, tinged with sulphur at the throat, and at the limb with dark purple lines and spots, C. S.; fr. Feb. *Wood* soft, considered very fit for making charcoal for gunpowder. (*Roxb.*) *Flowers*, *leaves*, and *roots* bitterish, subaromatic, and considered antispasmodic. (*Ainslie.*)

4. *corynostachya*, Wall. ♄ Khassya Hills.

GENDARUSSA, Rumph. (*Nees. l. c.*)

1. *vulgaris*, Nees. (*o. c. p.* 104;—*Wight. icon.* 2, *t.* 468.—Justicia Gendarussa, *L.*; *Roxb. fl. ind.* 1, *p.* 128; *ed. Carey*, 1, *p.* 129;—*B. Reg.* 8, *t.* 635;—*J. Grah. Cat. B. pl. p.* 164;—*Rheed.* 9, *t.* 42;—*Rumph.* 4, *t.* 28, 29.) জগন্মদন *Jugan-mudun.* গন্ধ রস *Gundho-ruso.* ♄ Rangoon. Taong-Dong. Madura. Salsette. N. Concan. Bengal, (Serampore.) Khassya Mountains, &c. Fl. 7 lines, pale greenish-white, sparingly stained with purple, C. S.; fr. Feb. and March. *Leaves* and *tender stalks* have when rubbed a strong, not unpleasant smell. (*Ainslie.*)
2. *bifaria*, Nees. (*l. c.*) ♄ Rocks near Pingee, on the banks of the Irawaddi. In H. C. G.
3. *decussata*, Nees. (*l. c.*—Justicia decussata, *Roxb. fl. ind.* 1, *p.* 127; *ed. Carey*, 1, *p.* 128.) ♄ Rangoon. Amherst. Prome. Fl. $6\frac{1}{2}$ lines, rosy-white, Feb. and March; fr. April.
4. *ventricosa*, Nees. (*l. c.*—Justicia ventricosa, *Wall. pl. as. rar.* 1, *t.* 93; —*B. M.* 54, *t.* 2766.) ♄ Khassya Mountains. Amherst. Fl. 9 lines, greenish-white, the limb inside streaked with purple, Dec. Jan. and Feb.; fr. March.
5. *orixensis*, Nees. (*l. c.*—Justicia orixensis, *Kön.*;—*Roxb. fl. ind.* 1, *p.* 132; *ed. Carey*, 1, *p.* 133.—J. tranquebariensis, *Roxb. fl. ind.* 1, *p.* 130; *ed. Carey*, 1, *p.* 131, excl. syn. L.; not Röm. and Sch. which is the real J. tranquebariensis, L.) ♃. Coromandel. Orissa. Fl. small, pale yellowish-red, and fr. Feb. and March.
6. *Neesiana*, Nees. (*o. c. p.* 105.—Justicia Neesiana, *Wall.*) ♄ Khassya Mountains. Fl. small, pale greenish-rose, C. S.
7. *quadrifaria*, Nees. (*l. c.*) ♄ Khassya Mountains. Fl. 4 lines, streaked with white and purple, C. S.; fr. Feb.
8. *micrantha*, Wall. MSS. ♃. Burma. In H. C. G. fl. C. S.
9. *furcata*, Nees. (*l. c.*—Justicia furcata, *Jacq. hort. schönbr.* 1, *t.* 3.—J. peruviana, *L.*;—*Cav. icon.* 1, *p.* 17, *No.* 26, *t.* 28;—*B. M.* 12, *t.* 430;—*Roxb. H. B. p.* 4,) ♄ Peru. Fl. 14 lines, pale purple violet, the lower lip at the middle reticulated with white veins, C. S.; fr. 0. Has been cultivated in H. C. G. since 1805.
10. *vasculosa*, Nees. ♄ Khassya Hills.
11. *ptychostoma*, Wall. ♄ Penang.

ERANTHEMUM, R. Br. (*Nees. o. c. p.* 106.)

1. *nervosum*, R. Br. (*Nees. l. c.*—E. pulchellum, *Andr.*; *B. Repos. t.* 88;—*Roxb. fl. ind.* 1, *p.* 111; *ed. Carey*, 1, *p.* 111;—*J. Grah. Cat. B. pl. p.* 163.—J. pulchella, *Ker. recens. pl. repos. p.* 41;—*Roxb.*

Corom. 2, *t.* 177.—J. nervosa, *Vahl.*;—*B. M.* 33, *t.* 1358.—Ruellia varians, *Cels. t.* 46.) কাল ঝাঁটী *Kalo-jhantee.* L. ♄ Common throughout the hilly parts of the Concan. Malabar Hill. Bombay. Mahableshwur. Silhet. Hurdwar. Nepal. Fl. 16 lines, indigo-coloured, with a whitish-yellow tube, Feb.

β. *floribus pallido-coeruleis.* Fl. pale-blue.

2. *strictum,* Colebr. (*Nees. l. c.*;—*Roxb. fl. ind. ed. Carey,* 1, *p.* 114;—*B. Reg.* 10, *t.* 867;—*B, M.* 58, *t.* 3068.) ♄ Khassya Mountains. Fl. 20 lines, above indigo-coloured, beneath pale blue, at the tube white-yellowish-blue, Jan. Feb. and March.

3. *suffructicosum,* Roxb. (*fl. ind.* 1, *p.* 111; *ed. Carey,* 1, *p.* 112;—*Nees. o. c. p.* 107.) ♄ Andaman Islands. Fl. pale blue. In H. C. G. fl. March. (*Roxb.*)

4. *crenulatum,* Wall. (*Nees. l. c.*;—*B. Reg,* 11, *t.* 879.—E. fœcundum. *Lindl.*;—*B. Reg.* 18, *t.* 1494?) ♄ Khassya Mountains. Penang. Fl. 14 lines, pale lilac, C. S.

5. *racemosum,* Roxb. (*fl. ind.* 1, *p.* 113; *ed. Carey,* 1, *p.* 113;—*Nees. l. c.*) ♄ Moluccas. Fl. largish, pale pink, or white, tinged with red. In H. C. G. fl. Nov. (*Roxb.*)

6. *palatiferum,* Nees. (*o. c. p.* 108.—Justicia palatifera, *Wall. pl. as. rar.* 1, *t.* 92.) ♄ Khassya Mountains. Fl. 2 inches, pale rose-coloured, with a yellowish dark purple-stained palate, end of R. S. and beginning of C. S.; fr. C. S.

? 7. *diantherum,* Roxb. (*fl. ind.* 1, *p.* 112; *ed. Carey,* 1, *p.* 112;—*Nees. l. c.*) ♄ Moluccas. Fl. small, white, with a tinge of red, and some minute red spots on the base of the middle lobe of the under lip. In H. C. G. fl. Sept. (*Roxb.*)

? 8. *barlerioïdes,* Roxb. (*fl. ind.* 1, *p.* 113; *ed. Carey,* 1, *p.* 114.) ♄ Andaman Islands. Fl. blue. In H. C. G. fl. March. (*Roxb.*)

JUSTICIA, L. (*Nees. l. c.*)

1. *Ecbolium,* L. (*Nees. l. c.*;—*B. M.* 43, *t.* 1847;—*Wight. icon.* 2, *t.* 463, not Roxb.) large, greenish-livid. In H. C. G.?

2. *dentata,* Klein. (*Nees. l. c.*—J. Ecbolium, *Roxb. fl. ind.* 1, *p.* 114; *ed. Carey,* 1, *p.* 115; not L.—*J. Grah. Cat. B. pl. p.* 164, excl. syn. L., Wall. Roxb. and B. M.—*Rheed.* 2, *t.* 20.) উদু জাতি *Oodoo-jati.* ♄ Fl. 2 inches, livid-verdigris-coloured, with a white tube. Common in most parts of India, and fl. nearly the whole year.

3. *calycotricha,* Lk. (*B. M.* 55, *t.* 2816;—*Spreng. syst. c. p. p.* 18.—J. calytricha, *Hook. exot. fl. t.* 212.—J. flavicoma, *Lindl.*;—*B. Reg.* 12, *t.* 1027.) ♄ Brazil. Fl. 1½ inch, pale yellow, tinged with orange, Feb. and March.

RHINACANTHUS, Nees. (*l. c.*)

1. *communis,* Nees. (*o. c. p.* 109;—*Wight. icon.* 2, *t.* 464.—Justicia nasuta, *L.*;—*Roxb. fl. ind.* 1, *p.* 120; *ed. Carey,* 1, *p* 121;—*J. Grah. Cat. B. pl. p.* 164;—*B. M.* 10, *t.* 325;—*Rheed.* 9, *t.* 69.) জুঁই পানা *Jooin-*

pana. ♄ Rocky part of the Rotunda Ghaut, Mahableshwur. Common in gardens. Fl. $1\frac{1}{4}$ inches, pure white, C. and H. S.; fr. 0.

2. *calcaratus*, Nees. (*l. c.*—Justicia calcarata, *Wall. pl. as. rar.* 2, *t.* 113.) ♄ Khassya Mountains. Fl. 20 lines, greenish-white, with a tinge of sulphur, March; fr. 0.

3. *albus*, Wall. (Justicia alba, *Roxb. fl. ind.; ed. Carey*, 1, *p.* 117.) ♄ Andaman Islands. Fl. large, pure white. In H. C. G. fl. H. S. (*Roxb.*)

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* *Crossandra oppositifolia*, Wight. ♄ Courtallum.—*Endopogon Amomum*, Nees. Peninsula of India?—*E. consanguineus*, Nees. Courtallum.—*Loxanthus Gomezii*, Nees. ♄ Khassya Mountains.—*Phlogacanthus tubiflorus*, Nees. ♄ Goalpara.—*Cryptophragmium cordifolium*, Nees. ♄ Courtallum.—*Rostellaria mollissima*, Nees. ♃. Nepal.—*Beloperone oblongata*, Nees. Brazil.—*Adhatoda argyrostachya*, Nees. ♄ Prome.—*A. nilgherrensis*, Nees. ♄ Neelgherries.—*A. arenaria*, Nees. ♄ Negapatam.—*Gendarussa vasculosa*, Nees. ♄ Khassya Mountains.—*G. tranquebariensis*, Nees.; Wight. icon. 2, t. 462. ♄ Tranquebar. Madras.—*Leptostachya virgata*, Nees. Taong-Dong.—*L. pectoralis*, Nees. (Justicia pectoralis, Jacq.; B. Reg. 10, t. 796.) Great Antilles.—*L. nitida*, Nees. (Justicia nitida, Jacq.) Small Antilles.—*Gymnostachyum leptostachyum*, Nees. ♃. Tavoy.—*Eranthemum macrophyllum.* Wall. ♄ Taong-Dong.—*E. purpurascens*, Nees. Monghir.—*E. montanum*, Roxb. (Justicia montana, Roxb. Corom. 2, t. 176.) ♄ Circars.—*E. Wightianum*, Wall. ♄ Courtallum.—*E. graciliflorum*, Nees. ♃. Penang.—*E. cinnabarinum*, Wall. pl. as. rar. 1, t. 21. Martaban.—*E. bicolor*, Schrank. B. M. 35, t. 1423. ♄ Luçon.—*E. fœcundum*, Lindl.; B. R. 18, t. 1494. ♄ Brazil.—*E. spinosum*, R. Br. ♄ W. Indies.—*E. variabile*, R. Br. ♄ Tropical New Holland.—*Justicia? coccinea*, Aubl. ♄ B. M. 12, t. 432. S. America.—*J.? quadrifida*, Vahl. ♄ Mexico.—*J.? variegata*, Aubl. ♄ Guiana.—*J.? secunda*, Vahl.; B. M. 46, t. 2060. ♄ W. Indies.—*J.? geniculata*, Sims.; B. M. 51, t. 2487. ♄ W. Indies.—*J.? lucida*, Andr.; B. M. 26, t. 1014. ♄ W. Indies.—*J.? salviæflora*, Humb. ♄ Mexico.—*J.? carthaginensis*, Jacq.; B. Reg. 10, t. 797. ♄ Carthagena.—*J.? nemorosa*, Swz. ♃. W. Indies.—*J.? eustachiana*, Jacq.; B. M. 46, t. 2078. ♄ St. Eustace.—*J.? carnea*, Lindl.; B. Reg. 17, t. 1397. ♄ Rio Janeiro.

f. Diclipterëæ, Nees.

(*In Wall. pl. as. rar.* 3, *p.* 96.)

Rungia, Nees. (*o. c. p.* 109.)

1. *parviflora*, Nees. (*o. c. p.* 110.—Justicia parviflora, *Retz.*—J. pectinata, *Roxb. Corom.* 2, *t.* 153; *fl. ind.* 1, *p.* 133; *ed. Carey*, 1, *p.* 134; —*J. Grah. Cat. B. pl. p.* 165.—Dicliptera coerulea, *Bl.*) ♃. Both Peninsulas of India. Bengal, (Serampore.) Monghir. Khassya Mountains. Nepal. Fl. $1\frac{1}{2}$ lines, white and blue; fr. C. S.

2. *repens*, Nees. (*l. c.*—*Wight. icon.* 2, *t.* 465.—Justicia repens, *L.*;—*Roxb. Corom.* 2, *t.* 152; *fl. ind.* 1, *p.* 132; *ed. Carey*, 1, *p.* 133;—*J. Grah. Cat. B. pl. p.* 165.—Dicliptera retusa, *Juss.*—D. repens, *Röm. and Sch.*—*R. Br. pr.*—*Burm. zeyl. t.* 3, *f.* 2.) ♃ Ceylon. Peninsula of India. Rajmahl. Monghir, &c. Fl. small, pale rose-coloured, R. and C. S.; fr. C. S.

Dicliptera, Juss. (*Nees. o. c. p.* 111.)

1. *bupleuroides*, Nees. (*l. c.*—Justicia chinensis, *a. Roxb. fl. ind.* 1, *p.* 124; *ed. Carey*, 1, *p.* 125, excl. syn. L. Vahl. and Burm.) ♃. Coromandel. Silhet. Assam. Nepal. Fl. small, pale rose-coloured, R. and C. S.; fr. C. S.

2. *Roxburghiana*, Nees. (*l. c.*—Justicia chinensis, *Roxb. l. c.*) ♃. China, Fl. 6 lines, pale rose-coloured, stained with red, R. and C. S.; fr. C. S.

Peristrophe, Nees. (*o. c. p.* 112.)

1. *tinctoria*, Nees. (*o. c. p.* 113.—Justicia tinctoria, *Roxb. fl. ind.* 1, *p.* 123; *ed. Carey*, 1, *p.* 124;—J. Roxburghiana, *Röm. and Sch.*—J. baphica, *Spreng.*;—*Rumph.* 6, *t.* 22, *f.* 1.) বেত রঙ্গ *Bet-rung*. ♄ Bengal, (Calcutta, Serampore.) Taong-Dong. Fl. 16 lines, deep rose-coloured, with a white tube, and a purple throat, R. and C. S.; fr. C. S.

2. *speciosa*, Nees. (*l. c.*—Justicia speciosa, *Roxb. fl. ind.* 1, *p.* 122; *ed. Carey*, 1, *p.* 123;—*B. M.* 54, *t.* 2722.) ♄ Interior of Bengal. Nepal. Fl. 15 lines, crimson, with the upper lip at the base dark purple-spotted, the end of C. S.; fr. 0.

3. *bicalyculata*, Nees. (*l. c.*—Justicia bicalyculata, *Vahl.*;—*Roxb. fl. ind.* 1, *p.* 126; *ed. Carey*, 1, *p.* 127;—*J. Grah. Cat. B. pl. p.* 164;—*Blum.*—J. ligulata, *Lam. ill. t.* 12, *f.* 2;—*Cavan. ic.* 1, *p.* 52, *t.* 71.—J. malabarica, *Ait.*—Dianthera bicalyculata, *Retz.*) নাসা ভাগা *Nasa-bhaga*. ☉ Java. Both Peninsulas of India. Bengal, (Serampore.) Hindoosthan. Fl. 6 lines, pale rose-coloured and white, C. S.; fr. C. S. and Feb. and March. The plants growing about Serampore have their leaves strigulose, and not glabrous as those described by Nees.
β. *albiflora*. Fl. white.

4. *lanceolaria*, Nees. (*o. c. p.* 114.—Justicia lanceolaria, *Roxb. fl. ind.* 1, *p.* 121; *ed. Carey*, 1, *p.* 122.) ♄ Khassya Mountains. Fl. 2 inches, rose-coloured, with the upper lip towards the base cream-coloured and dark purple dotted, Dec. and Jan.

5. *pulchella*, (Justicia pulchella, *Carey MSS.*) ♄ Native place uncertain. The plant was introduced into the garden here by Mrs. Middleton, in 1819. Fl. 8 lines, without pale rose-coloured, within pale purple, the base whitish and dark purple-dotted, Dec. Jan. and Feb.; fr. Feb. and March.

Hypoëstes, R. Br. (*Nees. o. c. p.* 114.)

1. *purpurea*, R. Br. (*Nees. l. c.*—Justicia purpurea, *Vahl.* not L.) ♄ China. Fl. 11 lines, purple, with a white tube, C. S.; fr. Feb.

RHAPHIDOSPORA, Nees. (*o. c. p.* 115.)

1. *glabra*, Nees. (*l. c.*) ♄ Coromandel. Fl. 4 lines, white, tinged with greenish-yellow and rose, and fr. C. S.
   α. Königiana, (Justicia glabra, *Kön.*;—*Roxb. fl. ind.* 1, *p.* 130; *ed. Carey*, 1, *p.* 132.) Panicles somewhat glabrous.
   β. Careyana. (Justicia Careyana, *Roxb. H. B. p.* 4.) Panicles more rigid, thickly covered with glands.

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* *Blechum luzonium*, Nees. ♃ Luçon—*B. Brownei*, Juss. ♃. W. Indies. —*B. laxiflorum*, Juss. ♃. Jamaica.—*B. angustifolium*, R. Br. ♃. Jamaica.—*Dicliptera cuneata*, Nees. ♄ Travancore. Courtallum.—*D. Burmanni*, Nees.; Burm. ind. t. 4, f. 1. ♄ Peninsulas of India.—*Peristrophe montana*, Nees. ♄ Courtallum.—*P. fragilis*, Nees. Tavoy.—*P. acuminata*, Nees. Tavoy. Khassya Mountains.—*P. pubigera*, Nees. ♄ Bhuddrinath, Kamroop.—*Hypoëstes Wallichii*, Nees. Nepal.—*H. floribunda*, R. Br. ♃. Tropical New Holland.—*H. verticillaris*, R. Br. ♄ C. G. H.

g. Andrographiëæ, Nees.
(*In Wall. pl. as. rar.* 3, *p.* 77.)

ANDROGRAPHIS, Wall. (*Nees. o. c. p.* 116.)

1. *paniculata*, Wall. (*Nees. o. c.*—Justicia paniculata, *Burm.*;—*Roxb. fl. ind.* 1, *p.* 117; *ed. Carey*, 1, *p.* 119;—*J. Grah. Cat. B. pl. p.* 164;—*Rheed.* 9, *t.* 56.) কাল মেঘ *Kalo-megh.* মহা তিতা *Maha-tita.* ⊙ Java. Peninsula of India. Ceylon. Bengal, (Serampore,) &c. Fl. 6 lines, white, upper lip with each of the two side lobes marked with a dark purple streak and a couple of dark purple dots; its middle lobe at base having a large purple spot on the inside, R. and C. S.; fr. C. S. and Feb. Plant very bitter, and in the Peninsula of India much used in medicine. It forms the basis of the French *drogue amère*.
2. *echioides*, Nees. (*o. c. p.* 117;—*Wight. icon.* 2, *t.* 467.) ⊙ Ceylon. Both Peninsulas of India. Himalayas.
   α. Lamarckiana, (Justicia ciliaris, *Lam.* excl. syn. L.) Racemes nearly simple.
   β. Linnæana, (Justicia echioïdes, *L. fl. zeyl. p.* 21;—*Roxb. fl. ind.* 1, *p.* 118; *ed, Carey*, 1, *p.* 119;—*J. Grah. Cat. B. pl. p.* 164;—*Vahl.*;—*Lam.*;—*Röm. and Sch.*;—*Spreng.*;—*Rheed.* 9, *t.* 46.) Fl. lines, white, with the upper lip, especially its middle lobe, dark purple-dotted, and fr. nearly throughout the year.

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* *Erianthera serpyllifolia*, Nees. ♄ Mysore.—*E. lobelioïdes*, Nees. ♄ Neelgherries.—*Haplanthus tener*, Nees. ♃. Tavoy. Taong-Dong.

? STAUROGYNE, Wall. (*pl. as. rar.* 2, *t.* 186.)

1. *argentea*, Wall. (*l. c.*) ♃. Silhet. Fl. 1 inch, purple, with the tube yellowish pale violet, and the two lower lobes of the limb marked with a whitish disk. Has been introduced into H. C. G. Fl. ?

ORDER CCV.—PINGUICULACEÆ, (LENTIBULACEÆ,) Lindl. Nat. Syst. p. 286.

Watery or marshy herbs, referred to two genera. Of these, Spreng. syst. enumerates 24 for N. Holland, 15 for S. America, Mexico, and the W. Indies; 15 for N. America; 11 for Europe; and 2 for Egypt. In S. Africa have been found 6 species; (*Harvey*,) and in the E. Indies, according to Spreng. syst. and Wall. Cat., 22 of *Utricularia*. A few species of these have been discovered in Nepal; all the rest are tropical. Properties of no importance.

UTRICULARIA, L. (*Spreng. syst.* 1, *p.* 26. *No.* 86;—*R. Br. pr. p.* 430.)

1. *reticulata*, Sm. (*Spreng. syst.* 1, *p.* 49.—U. coerulea, *Hb. Madr.* not L.) নীল ঝাঁজি *Neel-jhanjee*. ⊙ ⌒ Peninsula of India. Bengal, (Serampore.) Fl. small, pale blue, and fr. R. S.
2. *nivea*, Vahl. (*Spreng. syst.* 1, *p.* 49;—*Roxb. fl. ind. ed. Carey*, 1, *p.* 144.) শাদা ঝাঁজি *Sada-jhanjee*. ⊙ ⌒ Bengal, (Serampore.) Ceylon, &c. Fl. very small, white, with a yellowish palate, and fr. R. and C. S.

   β. *coerulea*. Fl. pale blue. (Serampore.)
3. *stellaris*, L. (*Spreng. syst.* 1, *p.* 52;—*Roxb. Corom.* 2, *t.* 180; *fl. ind.* 1, *p.* 143; *ed. Carey*, 1, *p.* 143;—*J. Grah. Cat. B. pl. p.* 185.) বড় ঝাঁজি *Buro-jhanjee*. ⊙ Lower Egypt. Coromandel. Bombay. Bengal, (Serampore.) Fl. smallish, yellow, and fr. R. S.
4. *fasciculata*, Roxb. (*fl. ind.* 1, *p.* 143; *ed. Carey*, 1, *p.* 143;—*Spreng. syst.* 1, *p.* 52.) ⊙ Coromandel. Tavoy. Bengal, (Serampore.) Silhet. Kemaon. Fl. smallish, yellow, C. S.; fr. March.
5. *diantha*, Schult. (U. Roxburghii, *Spreng. syst.* 1, *p.* 52.—U. biflora, *Roxb. fl. ind.* 1, *p.* 143; *ed. Carey*, 1, *p.* 144.) ছোট ঝাঁজি *Choto-jhanjee*. ⊙ Bengal, (Serampore.) Silhet. Nepal. Fl. small, yellow, with an orange-streaked scale, and fr. R. S.

ORDER CCVI.—GESNERACEÆ, Lindl. Nat. Syst. p. 286.

Herbs or undershrubs, by Lindl., (excluding Sinningia and Picria,) referred to 19 genera. They are all natives of the tropical parts of S. America and the W. Indies.

"Generally beautiful herbaceous plants, bearing flowers, the prevailing colour of which is bright red, and having tuberous roots. The succulent fruits are mucilaginous, sweetish and eatable. A dye is obtained from the calyxes and fruit of some of them for staining cotton, straw work, and domestic utensils." (*Lindl.*)

GESNERA.

1. *verticillata*, Hook. ♃. (*B. M.* 54, *t.* 2776.) Brazil. H. S. 1840.

TREVIRANIA.

1. *coccinea*, Willd. (Cyrilla pulchella, *L'Her. B. M.* 11, *t.* 374.) Jamaica. C. S. 1840.

GLOXINIA, L'Herit. (*G. Don's Mill. dict.* 4, *p.* 648.)

1. *caulescens*, Lindl. (*B. Reg.* 14, *t.* 1127;—*G. Don. o. c. p.* 649.) ♃. Pernambuco. Fl. large, dark bluish, R. S.; fr. 0.
2. *speciosa*, Ker. (*B. Reg.* 3, *t.* 213;—*G. Don. l. c.*;—*B. M.* 44, *t.* 1937;—*B. Cab.* 1, *t.* 28;—*J. Grah. Cat. B. pl. p.* 146.) ♃. Brazil. Fl. 2 inches, pale blue-indigo-coloured with a white purple-dotted throat, May; fr. 0.

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* *Gesnera Douglassii*, Lindl.; B. Reg. 13, t. 1110;—B. M. 54, t. 2776, and 64, t. 3612. ♃. Woods near Rio Janeiro.—*G. aggregata*, Ker.; B. M. 4, t. 329;—B. M. 54, t. 2725. ♃. Woods near Rio Janeiro.—*G. Deppeana*, Cham. and Schlecht. ♃. Woods of Jalapa. Mexico.—*G. macrostachya*, Lindl.; B. Reg. 14, t. 1202. ♃. Rio Janeiro.—*G. tubiflora*, Cav. ♃. Panama.—*G. Suttonii*, Booth.; B. Reg. t. 1637. ♃. Rio Janeiro.—*G. Sceptrum*, Mart.; B. M. 64, t. 3576. ♃. Brazil.—*G. Lindleyi*, Hook.; B. M. 64, t. 3602. ♃. Brazil.—*G. fascialis*, Lindl.; B. Reg. 21, t. 1785. ♃. Brazil.—*G. tuberosa*, Mart.; B. M. 65, t. 3664.—*G. elongata*, Humb.; B. M. 66, t. 3725. ♃. Tropical America.—*Gloxinia macrophylla*, Nees. ♃. Brazil.—*G. hirsuta*, Lindl.;—B. R. 12, t. 1004. ♃. Brazil.—*G. maculata*, L'Herit.;—B. M. 29, t. 1191. ♃. Carthagena.—*G. Schottii*, Mikan. (Sinningia Helleri, Nees.; B. Reg. 12, t. 997.) ♃. Rio Janeiro.—*G. guttata*, Mart. (Sinningia guttata, Lindl.; B. Reg. 13, t. 1112.) ♃. Rio Janeiro.—*G. velutina*, Mart. ♃. Brazil.—*G. villosa*, Mart. (Sinningia villosa, Lindl.; B. Reg. 14, t. 1134.) ♃. Brazil.—*Rytidophyllum tomentosum*, Mart. (Gesnera tomentosa, L.; B. M. 26, t. 1023.) ♄ Banks of rivers in Tropical America.—*R. auriculatum*, Hook.; B. M. 64, t. 3562. ♄ W. Indies.—*Conradia humilis*, Mart. ♄ W. Indies.—*Besleria umbrosa*, Mart. ♄ Humid places in Brazil.—*B. lutea*, L. ♄ Humid places in Jamaica.—*B. luteo-virens*, Nees. ♄ Humid woods in Brazil.—*Hypocyrta aggregata*, Mart. ♄ Woods of Brazil, along rivers.—*Columnea scandens*, L.—B. Reg. 10, t. 805. ♄ ◡ Humid places of Guiana and W. Indies.—*Klugia azurea*, Schlecht. ♃. Mexico.—*Tapina barbata*, Mart. ♃. Marshy places, Brazil.—*Nemonanthus Chloronema*, Mart. ♄ Rio Janeiro.—*N. Jonema*, Schrad. ♄ ◡ Brazil.—*Alloplectus cristatus*, Mart. ♄ ◡ Humid woods of Guiana and Martinique.—*A. coccineus*, Mart. ♄ ◡ Guiana.—*Episcia decumbens*, Mart. ♃. Marshy places of Brazil.—*E. melittifolia*, Mart. ♃. Guiana.

ORDER CCVII.—OROBANCHACEÆ, Lindl. Nat. Syst. p. 287.

Leafless, parasitical herbs, by Lindl. referred to 9 genera, of these, Spreng. syst. enumerates 23 species from Europe; 5 from N. America; 3 from N. Africa; 3 from Caucasus; 2 from the Levant; 1 from Siberia, and 1 from Arabia. In S. Africa has been found 1 species, (*Harvey.*) To the E. Indies are assigned 3 species of *Orobanche;* (Pungee, Oude, Nepal, China?): 1 of *Phelipæa?* (Herb. Madras.): 3 of *Aginetia;* (Himalayas, Bengal, Courtallum,): and 1 of *Lathræa,* (Himalayas.) Properties unimportant.

Orobanche, Tournef. (*G. Don's Mill. dict.* 4, *p.* 628.)

1. *indica,* Buch. (*Roxb. Corom,* 3, *t.* 292; *fl. ind.* 3, *p.* 27.—Philipæa indica, *G. Don. o. c. p.* 632;—*J. Grah. Cat. B. pl. p.* 146.) ⊙ Coromandel. Deccan. Guzerat. Bengal, (Serampore.) Hindoosthan. Oude. Nepal. A parasite growing on Tobacco plants. Fl. middle-sized, blue, Jan.; fr. March.
2. *acaulis,* Roxb. (*fl. ind.* 3, *p.* 28;—*G. Don. o. c. p.* 630.) ⊙, Parasite, found growing on the roots of the China Sugar-cane in H. C. G. Fl. large, lively purple, Sept.; fr. C. S. (*Roxb.*)

Æginetia, Roxb. (*G. Don's Mill. dict.* 4, *p.* 635.)

1. *indica,* Roxb. (*fl. ind.* 3, *p.* 30; *Corom.* 3, *t.* 92;—*J. Grah. Cat. B. pl. p.* 146;—*G. Don. l. c.*—Orobanche Æginetia, *L.;*—*Rheed.* 11, *t.* 47.) ⊙ Circars. Kandalla. The Concans. Salsette. Silhet. Deyra-Dhoon. Tavoy. Taong-Dong. Fl. large, purple. Has been introduced into H. C. G.?
2. *pedunculata,* Wall. (*pl. as. rar.* 3, *t.* 219.—Orobanche pedunculata, *Roxb. fl. ind.* 3, *p.* 29;—*G. Don. o. c. p.* 631.) ⊙. Parasite, growing upon the roots of the Kuskus grass. (Andropogon muricatus, Retz.) Fl. large, deep purple, with the tube brownish and inside yellow, R. S.; fr. Oct. Bengal, (Serampore.)

ORDER CCVIII.—SCROPHULARIACEÆ, Lindl. Nat. Syst. p. 288.

THE FIGWORT TRIBE.

Herbs, undershrubs, or sometimes shrubs, by Bentham referred to 133 genera. Of these, Spreng. syst. enumerates about 250 for Europe; 230 for S. America, Mexico, and the W. Indies; 75 for N. America; 52 for Siberia; 46 for New Holland and the South Sea Islands; 32 for N. Africa; 30 for the Levant; 30 for Caucasus, Tauria, Dahuria, and Iberia; 7 for Madeira, and the Canaries; 5 for the Mascarenhas Islands; 4 for China; 2 for Japan; 2 for Persia; 1 for Arabia; 1 for Madagascar; 1 for Guinea; and 1 for Melville Island. *Harvey* assigns to S. Africa 250 species.—Ben-

tham's E. Indian Scrophularinæ comprehend 166 species; viz. 1 of *Verbascum*; 1 of *Celsia*; 8 of *Scrophularia*; 2 of *Linaria*; 1 of *Antirrhinum*; 5 of *Pterostigma*; 5 of *Lindenbergia*; 12 of *Stemodia*; 7 of *Limnophila*; 3 of *Mazus*; 3 of *Mimulus*; 5 of *Herpestis*; 3 of *Dopatrium*; 2 of *Peplidium*; 13 of *Bonnaya*; 19 of *Vandellia*; 6 of *Torenia*; 2 of *Artanema*; 8 of *Striga*; 3 of *Buchnera*; 1 of *Sutera*; 7 of *Buddlea*; 1 of *Hemiphragma*; 1 of *Ourisia*; 1 of *Scoparia*; 1 of *Picrorrhiza*; 12 of *Veronica*; 1 of *Calorrhabdos*; 1 of *Wulfenia*; 2 of *Gymnandra*; 4 of *Gerardia*; 1 of *Glossostylis*; 4 of *Centranthera*; 1 of *Euphrasia*; 1 of *Siphonostegia*; and 18 of *Pedicularis*. "They are common in the plains, and occur in considerable numbers in the mountains. But the tribes which prevail in the latter are those of which the genera are chiefly found in temperate countries; though of these a few species occur also in the plains, but it is only during the cold weather; while the tropical genera which occur in the mountains spring up entirely in the rainy season." (*Royle*)—"Scrophulariaceæ are generally acrid, bitterish, and suspected plants." (*Lindl.*) Digitalis purpurea, L. (*Foxglove*) is now almost the only plant of the order, which is usefully employed in medicine. Its use requires, however, great caution.

A. Verbasceæ, Bartl.

Verbascum, Tournef. (*G. Don's Mill. dict.* 4, *p.* 488.) *Mullein.*

1. *Thapsus*, L. (*G. Don. l. c.*;—*E. B.* 8, *t.* 549;—*Roxb. H. B. p.* 16.) ♂. Europe. Tauria. Siberia. Caucasus. Gossain Than. Fl. largish, deep yellow, C. S.; fr. H. S.
2. *indicum*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 2, *p.* 236;—*G. Don. o. c. p.* 489.—V. Thapsus, *Roxb. fl. ind.* 1, *p.* 560; not L.) ♂. Gossainthan. Fl. like those of *No.* 1, C. S.
3. *macranthum*, Hoffm. and Lk. (*G. Don. o. c. p.* 490.) ♂. Spain. Fl. large, yellow, C. S.
4. *australe*, Schrad. (*G. Don. l. c.*) ♂. S. Europe. Fl. largish, yellow, sweet-scented, C. S.
5. *pulverulentum*, Vill. (*G. Don. o. c. p.* 493.) ♂. Dauphiny. Fl. middle-sized, yellow, sweet-scented, C. S.

Celsia, L. (*G. Don's Mill. dict.* 4, *p.* 498.)

1. *coromandeliana*, Vahl. (*G. Don. o. c. p.* 499;—*Roxb. fl. ind.* 3, *p.* 100.—C. viscosa, *Roth.*) কোকশিম *Koksim.* ⊙ Fl. 4½ lines, bright sulphur-coloured, C. S.; fr. H. S.
2. *cretica*, L. (*G. Don. l. c.*;—*B. M.* 24, *t.* 964;—*Roxb. H. B. p.* 45.) ⊙ ♂. Candia. N. Africa. Fl. largish, deep yellow, Feb. and March.

Calceolaria, L. (*G. Don's Mill. dict.* 4, *p.* 602.)

1. *pinnata*, L. (*G. Don. l. c.*;—*Vahl. enum. excl. syn.*;—*B. M.* 2, *t.* 41;—*Roxb. H. B. p.* 4.) ⊙ Humid places of Peru. Fl. smallish, pale yellowish, Feb. and March.

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* *Verbascum crassifolium*, Hoffm. and Lk. ♂. Portugal.—*V. cuspidatum*, Schrad. ♂. Vienna.—*V. rotundifolium*, Ten. ♂. Sicily.—*V. Blattaria*,

L. ; E. B. 6, t. 393. ♂ S. Europe.—*Celsia Arcturus*, L. ; B. M. 45, t. 1962. ♂ Candia.—C. *betonicæfolia*, Desf. ♂ N. Africa.—*Isanthera permollis*, Nees. Peninsula of India ?—*Calceolaria ovata*, Sm. ⊙ Peru. —*Scrophularia vernalis*, L. ; E. B. 8, t. 567. ⊙ Europe.

B. Hemimeriëæ.

Hemimerideæ, *Benth.*

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* *Angelonia salicariæfolia*, Humb. ; B. M. 51, t. 2478. ⊙ S. America.—*A. Gardneri*, Hook. ; B. M. 66, t. 3754. ♄ Pernambuco.—*Ehylacantha campestris*, Mart. ♃ Fields of Brazil.—*Nemesia bicornis*, Pers. ⊙ C. G. H.

C. Antirrhineæ, Chav.

(*G. Don's Mill. dict.* 4, *p.* 514.)

Linaria, Tournef. (*G. Don. o. c. p.* 517.) *Toadflax.*

1. *ramosissima*, Wall. (*pl. as. rar.* 2, *t.* 153 ;—*G. Don. o. c. p.* 521.—L. Roylei, *Chav.*) ♄ ⌒ Burma. Patna. Delhi. Fl. 4 lines, pale sulphur, R. S. ; fr. C. S.
2. *triphylla*, Mill. (*G. Don. o. c. p.* 522.—L. glabrata, *H. B. and Kth.*—L. neglecta, *Clarke and Guss.*—L. tricolor, *Hortul.*—Antirrhinum triphyllum, *L.* ;—*Gärtn. fr.* 1, *p.* 249, *t.* 53, *f.* 7, *H.* ;—*B. M.* 9, *t.* 324 ;—*Roxb. H. B. p.* 45.) ⊙ S. Europe. Fl. large, yellow, purple, and white, Feb. and March ; fr. April.
3. *vulgaris*, Mill. (*G. Don. o. c. p.* 524.—L. Gebleri, *Besser.*—L. ciliata, *Lang.*—Antirrhinum commune, *Lam.*—A. Linaria, *L.* ;—*Gärtn. fr.* 1, *p.* 248, *t.* 53, *f.* 7 ;—*E. B.* 10, *t.* 658 ;—*Roxb. H. B. p.* 45.) ♃. Europe. Siberia. Fl. largish, white sulphur orange-coloured, Feb. and March ; fr. 0.
4. *spartea*, Hoffm. and Lk. (*G. Don. o. c. p.* 526.—L. juncea, *Desf.* ; not Ait.—L. præcox, *Hoffm. and Lk.* excl. syn. L.—Antirrhinum junceum, *Lam.* ; not L.—A. sparteum, *L.* ; *B. M.* 6, *t.* 200.) ⊙ Spain. Portugal. S. France. Canaries. Morocco. Fl. large, deep yellow orange-coloured, Feb. and March ; fr. April.
5. *juncea*, Ait. (*G. Don. l. c.* ; not Desf. ; nor Reichb.—L. meonantha, *Hoffm. and Lk.*—Antirrhinum virgulatum, *Brot.*—A. junceum, *L.* ; not Lam. ;—*Roxb. H. B. p.* 45.) ⊙ Spain. Portugal. Fl. much smaller than those of No. 4, yellow, with the palate orange, Feb. and March ; fr. April.
6. *bipartita*, Willd. (*G. Don. o. c.* ;—*Swt. fl. gard. t.* 30.—L. speciosa, *Jacq. fil. ecl.* 1, *t.* 95 ; not Tenore.—L. coerulea, *Hortul.*—Antirrhinum speciosum, *Donn. hort. cant.* ;—*Roxb. H. B. p.* 45.—A. orchidiflorum, *Hortul.*—A. bipartitum, *Vent. hort. cels. t.* 82.) ⊙ Morocco. Tangier. Fl. small, blue, Feb. and March ; fr. April.
7. *purpurea*, Mill. (*G. Don. o. c. p.* 527.—L. purpurascens, *Bernh.*—Antirrhinum purpureum, *L.* ;—*Gärtn. fr.* 1, *p.* 249, *t.* 53, *fig.* 7, *K.* ;—*B. M.* 3, *t.* 99 ;—*Roxb. H. B. p.* 45 ;—*Sibth. and Sm. fl. gr. t.* 589.) ♂

♃. S. Europe. Fl. largish, purple, with a dark purple palate, Feb. and March; fr. 0.

ANTIRRHINUM, Tournef. (*G. Don's Mill. dict.* 4, *p.* 514.) *Snapdragon.*

1. *sempervirens*, Lapeyr. (*G. Don. o. c. p.* 515.—A. molle, *St. Am.*; not L.) ♄ France. Portugal. Fl. largish, white, having the upper lip and tube marked with purple, and the palate yellowish, Feb.; fr. 0.
2. *majus*, L. (*sp. pl.* 859. β.—*Gärtn. fr.* 1, *p.* 249, *t.* 53, *fig.* 7, *G.*;—*E. B.* 2, *t.* 129;—*G. Don. l. c.*—A. grandiflorum, *Stok.*—A. murale, *Bauh.*—Orontium majus, *Pers.*) ♃. South and Middle Europe. Barbary. Persia. Fl. 1-2 inches, purple, red, scarlet, white, or variegated with these colours, April; fr. 0.
3. *siculum*, Ucria. (*G. Don. o. c. p.* 516.—A. angustifolium, *Poir.*) ♃. Sicily. Calabria. Fl. scarcely an inch, white or yellowish, rarely purple, March; fr. 0.
4. *Orontium*, L. (*G. Don. l. c.*;—*Gärtn. fr.* 1, *p.* 249, *t.* 53, *f.* 7;—*Lam. ill. t.* 531, *f.* 2;—*E. B.* 17, *t.* 1155;—*Roxb. H. B. p.* 45;—A. humile, *Salisb.*—Orontium arvense, *Pers.*) ⊙ Europe. Barbary. Madeira. Scio. Fl. small, rose-coloured or white, striped with purple, and fr. April.
   β. *indicum*, Chav. (Antirrhinum indicum, *Royle.*—A. gibbosum, *Wall.*) ⊙ Hindoosthan. Fl. smaller, yellowish, the tube purple, dotted.
   γ. *grandiflorum*, Chav. (Antirrhinum calycinum, *Lam.*—A. Orontium. β. album, *Roth.*—A. jamaicense, *Fisch. and Hortul.*—A. elegans, *Ten.*) ⊙ Portugal. Fl. 8 lines, whitish, streaked with purple.

MAURANDYA, Ort. (*G. Don's Mill. dict.* 4, *p.* 532.)

1. *Barclayana*, Lindl. (*B. Reg.* 13, *t.* 1108;—*G. Don. l. c.*;—*Chav. antirrh. p.* 77.) ♄ ◡ Mexico. Fl. 3 inches, dark purple, with a greenish tube, C. S.; fr. H. S.
2. *semperflorens*, Ort. (*G. Don. o. c. p.* 533;—*Jacq. hort schönbr.* 3, *t.* 288;—*B. M.* 13, *t.* 460;—*J. Grah. Cat. B. pl. p.* 142.—M. scandens, *Pers.*—Usteria scandens, *Cav.*;—*B. Repos.* 1, *t.* 63.) ♄ ◡ Mexico. Fl. 1½ inch, rose-coloured, with the tube and throat white, tinged with rose, and fr. nearly throughout the year.
3. *antirrhiniflora*, Willd. (*G. Don. l. c.*;—*B. M.* 40, *t.* 1643;—*J. Grah. Cat. B. pl. p.* 142.—M. personata, *Sessé.*—Usteria antirrhiniflora, *Poir.*) ♄ ◡ Mexico. Fl. 9-10 lines, lilac-violet, with the throat minutely violet-dotted, and marked with four cream sulphur-coloured convexities, and fr. C. and H. S.

LOPHOSPERMUM, D. Don. (*G. Don's Mill. dict.* 4, *p.* 533.)

1. *erubescens*, D. Don. (*G. Don. l. c.*;—*Swt. flowr. gard. n. s. t.* 68.—L. scandens, *Hook.*;—*B. M.* 57, *t.* 3037, 38;—*B. Reg.* 16, *t.* 1381; not D. Don.) ♄ ◡ Mexico. Fl. 3 inches, rose-coloured, the lower lobe of the limb marked with a yellow hairy crest, C. S.

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* *Linaria tenella*, DC. ⊙ Spain—*L. villosa*, DC. ♃. Spain.—*L. origanifolia*, DC. ♃. S. France.—*L. minor*, Desf. (Antirrhinum minus, L.;

E. B. 28, t. 2014.) ⊙ Europe.—*L. Cymbalaria*, Mill. (Antirrhinum Cymbalaria, L.; E. B. 7, t. 502.) 4. Europe.—*L. spuria*, Mill. (Antirrhinum spurium, L.; E. B. 10, t. 691.) ⊙ Europe.—*L. Elatine*, Mill. (Antirrhinum Elatine, L.; E. B. 10, t. 692.) ⊙ Europe. N. Africa.—*L. cirrhosa*, Willd. ⊙ S. France.—*L. incana*, Wall. 4. Nepal.—*L. triornithophora*, Willd. (Antirrhinum triornithophorum, L.; B. M. 15, t. 525.) 4. Portugal.—*L. pedunculata*, Spreng. ⊙ Spain.—*L. flava*, Desf. ⊙ Barbary.—*L. lusitanica*, Hoffm. and Lk. not Mill. 4. Portugal.—*L. versicolor*, Mönch. ⊙ S. France.—*L. Pelisseriana*, DC. ⊙ S. Europe.—*L. tristis*, Mill. (Antirrhinum triste, L.; B. M. 3, t. 74.) 4. Near Gibraltar.—*L. amethystea*, Hoffm. and Lk. ⊙ Portugal. Spain.—*Anarrhinum bellidifolium*, Desf. ♂. France. Portugal. Germany, &c.—*A. duriminium*, Brot. ♂. N. Portugal.—*Lophospermum scandens*, D. Don. B. M. 65, t. 3650, not Hook and Lindl. ♄ ◡ Mexico.—*L. atrosanguineum*, Zucc. (Rhodochiton volubilis, Zucc.; B. Reg. 21, t. 1755.) ♄ ◡ Mexico.—? *Gastromeria physalodes*, G. Don. ♄ Mexico.

D. Salpiglosseæ.

(Salpiglossideæ, *Benth.*)

Schizanthus, Ruiz. and Pav. (*G. Don's Mill. dict.* 4, *p.* 469.)

1. *pinnatus*, Ruiz. and Pav. (*G. Don. l. c.*;—*Hook. exot. fl. t.* 73;—*B. Reg.* 9, *t.* 725;—*B. M.* 50, *t.* 2404.) ⊙ Chili. Fl. middle-sized, upper lip rosy-lilac, with the uppermost lobe orange-dotted, lower lip violet, Feb. and March; fr. April.

Browallia, L. (*G. Don's Mill. dict.* 4, *p.* 477.)

1. *demissa*, L. (*G. Don. o. c. p.* 478;—*B. M.* 28, *t.* 1136.) ⊙ Panama. Fl. middle-sized, indigo-coloured, and fr. C. S. Perhaps not different from No. 2.
2. *elata*, L. (*G. Don. l. c.*;—*B. M.* 1, *t.* 34.—*Roxb. H. B. p.* 45.) ⊙ Peru. Fl. middle-sized,—the tube greenish-white, tinged with dark purple, the limb externally violet, internally beautifully blue, with the upper lip on the inside sulphur-coloured downwards, and fr. C. S.

   β. *albiflora*. Tube of corol greenish-white; limb pure white, with the veins beneath greenish.

Franciscea, Pohl. (*G. Don's Mill. dict.* 4, *p.* 476.)

1. *uniflora*, Pohl. (*G. Don. o. c. p.* 477.—F. Hopeana, *Hook.*;—*B. M.* 55, *t.* 2829.—*B. Cab. t.* 1322.) ♄ Rio Janeiro. Fl. middle-sized, fragrant, indigo-coloured, with a pale tube, and its mouth on the lower margin yellow, Feb.; fr. 0.

Brunfelsia, Plum. (*G. Don's Mill. dict.* 4, *p.* 476.)

1. *undulata*, Swz. (*G. Don. l. c.*;—*B. Repos. t.* 167;—*B. Reg.* 3, *t.* 228;—*Roxb. H. B. p.* 45.) ♄ Jamaica. Fl. 2½ inches, whitish cream-coloured, sweet-scented, and fr. nearly throughout the year.
2. *americana*, L. (*G. Don. l. c.*;—*B. M.* 11, *t.* 393.) ♄ W. Indies. Fl. very large, whitish-greenish with a tinge of sulphur. Introduced in 1841.

* *Schizanthus porrigens*, Grah. B. M. 51, t. 2521. ⊙ Chili.—*S. retusus*, Hook; B. M. 58, t. 3045. ⊙ Chili.—*S. Hookeri*, Gillies; B. M. 58, t. 3070. ⊙ Chili—*S. Grahami*, Hook; B. M. 58, t. 3044. ⊙ Chili.—*Salpiglossis sinuata*, Ruiz. and Pav. (S. atropurpurea, Grah.; B. M. 55, t. 2811.) ♂ Chili.—*Browallia viscosa*, H. B. and Kth. ⊙ New Granada.—*B. grandiflora*, Grah.; B. M. 58, t. 3069. ⊙ Peru.—*B. cordata*, G. Don. (B. grandiflora, Lindl.; B. Reg. 16, t. 1364, not Grah.) ⊙ Peru.—*Franciscea latifolia*, Pohl. ♄ Rio Janeiro.—*F. acuminata*, Pohl. ♄ Rio Janeiro.—*F. ramosissima*, Pohl. ♄ Rio Janeiro.—*Duboisia myoporoides*, R. Br. ♄ Port Jackson, N. Holland.

E. DIGITALEÆ, Benth.

(Cheloneæ, D. Don.)

PENTSTEMON, Michx. (*G. Don's Mill. dict.* 4, *p.* 636.)

1. *campanulatus*, Willd. (*G. Don. o. c. p.* 639;—*B. M.* 44, *t.* 1878.—Chelone campanulata, *Cav. ic.* 1, *t.* 29.—C. campanuloïdes, *Andr.; B. Repos.* 1, *t.* 40.) ♃. Mexico. Fl. 1 inch, externally purple, internally below the limb whitish, and streaked with purple on the lower-side, H. S.
2. *roseus*, G. Don. (*l. c.*—P. angustifolius, *Lindl. B. Reg.* 13, *t.* 1122;—not Kth.) ♃. Mexico. Has been introduced into H. C. G.

RUSSELIA, Jacq. (*G. Don's Mill. dict.* 4, *p.* 513.)

1. *floribunda*, H. B. and Kth. (*G. Don. o. c. p.* 514.) ♄ Mexico. Fl. middle-sized, scarlet, C. S.
2. *juncea*, Zucc. (*B. Reg.* 21, *t.* 1773.) ♄ Mexico. Fl. 9 lines, scarlet, R. S.; fr. 0. Seems very nearly allied to R. equisetiformis, Cham. and Schlecht.

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* *Pentstemon pubescens*, Ait. ♃. Carolina. Georgia.—*P. pulchellus*, Lindl.; B. Reg. 14, t. 1138. ♃. Mexico.—*P. atropurpureus*, G. Don. (Chelone atropurpurea, Swt. fl. gard. t. 235.) ♃. Mexico.—*P. gentianoïdes*, G. Don. (Chelone gentianoïdes, H. B. and Kth.) ♃ Mexico.—*P. Humboldtii*, G. Don. ♃. Mexico.—*P. barbatus*, Nutt. (Chelone barbata, Cav.;—B. Reg. 2, t. 116.) ♃. Mexico.—*Chelone obliqua*, L.; B. Reg. 2, t. 175. ♃. Southern States of N. America.—*C. latifolia*, Mühl. ♃. Carolina.

F. GRATIOLEÆ, Benth.

LINDENBERGIA, Lk. and Otto. (*Benth. scroph. ind. p.* 21;—*G. Don's Mill. dict.* 4, *p.* 539.)

1. *ruderalis*, (L. urticæfolia, *Lehm.;—G. Don. l. c.;—J. Grah. Cat. B. pl. p.* 143.—Stemodia ruderalis, *Vahl.;—Roxb. fl. ind.* 3, *p.* 94.—Brachycoris parviflora, *Schrad.*) হুলদী বসন্ত *Huldee-busunto.* ⊙ All over India. Fl. small, bright yellow, and fr. throughout the year.

STEMODIA, L. (*Benth. scroph. ind. p.* 23;—*G. Don's Mill. dict.* 4, *p.* 539.)

1. *viscosa*, Roxb. (*fl. ind.* 3, *p.* 94; *Corom.* 2, *t.* 163;—*G. Don. o. c.*

p. 540;—*J. Grah. Cat. B. pl. p.* 143.) ⊙ Coromandel. Bombay. Fl. small, violet. In H. C. G. fl. and fr. C. S. (*Roxb.*) The plant has a pleasant, aromatic smell. (*Roxb.*)

LIMNOPHILA, R. Br. (*pr. p.* 442;—*Benth. scroph. ind. p.* 25;—*G. Don's Mill. dict.* 4, *p.* 542.)

1. *heterophylla*, Benth. (*l. c.*;—*G. Don. o. c. p.* 543.—Columnea heterophylla, *Roxb. fl. ind.* 3, *p.* 97?) ⊙ Bengal, (Serampore.) Hindoosthan. Nepal. Fl. Feb. and March; fr. H. S. (*Roxb.*)

2. *gratioloïdes*, R. Br. (*l. c.*;—*G. Don. l. c.*—*J. Grah. Cat. B. pl. p.* 143.—Gratiola trifida, *Willd.*—Hottonia indica, *L.*—Hydropityon pedunculatum, *Ser.*;—*DC. pr.* 1, *p.* 422.—Columnea balsamica, *Roxb. fl. ind.* 3, *p.* 97;—*Rheed.* 9, *t.* 85.—*Burm. zeyl. t.* 55, *f.* 1.) কর্পূর *Kurpoor.* ⊙ Ceylon. Coromandel. Bombay. Bengal, (Serampore,) &c. Tropical N. Holland. Fl. 5 lines, greenish-white, streaked with purple, R. and C. S.; fr. C. S. The plant has a grateful, somewhat terebinthaceous smell, and a warm aromatic taste. (*Roxb.*)

β. *myriophylloïdes*, Benth. (Limnophila myriophylloïdes. *Roth.*—*Rheed.* 12, *t.* 36.) ⊙ Serampore.

3. *Roxburghii*, G. Don. (*l. c.*;—*J. Grah. Cat. B. pl. p.* 143, excl. syn. Rheed.—Capraria gratissima, *Roxb. fl. ind.* 3, *p.* 92.) কাল কর্পূর *Kalo-Kurpoor.* ⊙ Peninsula of India. Bengal, (Serampore.) Fl. small, purple, R. and C. S.; fr. C. S. The whole plant is delightfully aromatic, and has a sweet pleasant taste. (*Roxb.*)

4. *racemosa*, Benth. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 144.—L. hyssopifolia, *Roth.*—Cyrilla aquatica, *Roxb. fl. ind.* 3, *p.* 115;—*Corom.* 2, *t.* 189.) ⊙ Coromandel. The Concans. Belgaum. Bengal, (Serampore.) Fl. smallish, beautifully bluish, R. and C. S.; fr. C. S. The whole plant fragrant.

5. *albiflora*. ⊙ Bengal, (Serampore.) Very nearly allied to *No.* 3. Fl. white, small, racemose, Sept. and Oct.; fr. C. S. The whole plant delightfully aromatic.

HERPESTIS, Gärtn. (*Benth. scroph. ind. p.* 29;—*G. Don's Mill. dict.* 4, *p.* 544.)

1. *Monniera*, H. B. and Kth. (*G. Don. o. c. p.* 545;—*J. Grah. Cat. B. pl. p.* 144.—H. Brownei, *Nutt.*; *Lk.* excl. syn.—H. procumbens, *Spreng.*—H. cuneifolia, *Pursh.*—Bramia indica, *Lam.*—Calytriplex obovata, *Ruiz. and Pav.*—Monniera cuneifolia, *Michx.*—M. Brownei, *Pers.*—Gratiola portulacacea, *Weinm.*—*B. M.* 52, *t.* 2554.—G. Monniera, *L.*;—*Roxb. fl. ind.* 1, *p.* 141; *ed. Carey*, 1, *p.* 141; *Corom.* 2, *t.* 178;—*Rheed.* 10, *t.* 14.) আদা বর্ণি *Ada-burni.* ♃. Fl. smallish, blue, R. and C. S.; fr. C. S. The natives employ the expressed juice, mixed with Petroleum, to rub on parts affected with rheumatic pains. (*Roxb.*)

2. *sessiliflora*. ⊙ Serampore. Fl. small, purplish, R. S.

CURANGA, Juss. (*in Vahl's enum.* 1, *p.* 100.—*Juss. Ann. Mus.* 9, *p.* 319.—Herpestis amara, *Benth.*—Serratula, *Rumph.* 5, *t.* 170, *f.* 11.)

1. *amara*, Vahl. ⊙ Moluccas. Fl. white, small, or purple dotted. In H. C. G. fl. C. S. Leaves exceedingly bitter. (*Roxb.*)

DOPATRIUM, Buch. (*G. Don's Mill. dict.* 4, *p.* 536;—*Benth. scroph. ind. p.* 31.)

1. *nudicaule*, Benth. (*G. Don. l. c.*—Gratiola nudicaulis, *Willd.*—G. aphylla, *Roth.*—G. cuneifolia, *Roxb. fl. ind.* 1, *p.* 142; *ed. Carey.* 1, *p.* 142.) ⊙ Coromandel. Bengal, (Serampore.) Fl. very small, blue, R. S.; fr. C. S.

2. *junceum*, Buch. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 142.—Gratiola juncea, *Roxb. Corom.* 2, *t.* 129; *fl. ind.* 1, *p.* 142; *ed. Carey*, 1, *p.* 142.) ⊙ Coromandel. Fl. small, rose-coloured. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

PEPLIDIUM, Delile. (*G. Don's Mill. dict.* 4, *p.* 536.)

1. *diandrum*, (P. capense, *Spreng.*—Microcarpæa spathulata, *Hook. Bot. Misc. suppl.* 1, *t.* 4;—*J. Grah. Cat. B. pl. p.* 142.—Limosella diandra, *L.*; *Roxb. fl. ind.* 3, *p.* 91.) ♃. Plains of India as far as Seharanpore. Fl. small, R. S.; fr. C. S.

BONNAYA, Lk. (*Benth. scroph. ind. p.* 32;—*G. Don's Mill. dict.* 4, *p.* 537.)

1. *serrata*, (B. brachiata, *Lk. and Otto.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 143.—Gratiola serrata, *Roxb. H. B. p.* 4; *fl. ind.* 1, *p.* 139; *ed. Carey*, 1, *p.* 140;—*Rheed.* 9, *t.* 59?) ভূমি নিম *Bhoomi-nim.* ⊙ Peninsula of India. Bengal, (Serampore.) Fl. smallish, pink-coloured, R. S.; fr. C. S.

2. *reptans*, Spreng. (*Benth. scroph. ind. p.* 32;—*G. Don. l. c.*—B. ruellioïdes, *Spreng.*—B. ciliata, *Spreng.*—Gratiola reptans, *Roxb. fl. ind.* 1, *p.* 140; *ed. Carey*, 1, *p.* 140.—G. ruellioïdes, *Kön.*—G. ciliata, *Colsm.*) ⊙ Moluccas. Khassya Mountains. Nepal. Fl. smallish, bluish-pink. R. S.; fr. C. S.

3. *veronicæfolia*, Spreng. (*Benth. o. c. p.* 33;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 143.—B. rigida, *Benth. in Wall. Cat.*—B. procumbens, *Benth. ibid.*—B. marginata, *Spreng.?*—B. Rothii, *Lk.*—Gratiola veronicifolia, *Retz.?*—*Roxb. Corom.* 2, *t.* 154; *fl. ind.* 1, *p.* 138; *ed. Carey*, 1, *p.* 139.—G. marginata, *Colsm.?*—G. grandiflora, *Retz.*; not Roxb.—G. racemosa, *Roth.*; not Roxb.—*Rumph.* 5, *t.* 170, *f.* 2.) ⊙ Moluccas. Coromandel. Mahableshwur. Bengal, (Serampore.) Burma. Silhet. Nepal. China. Fl. small, violet, R. S.; fr. C. S.

4. *verbenæfolia*, Spreng. (*Benth. o. c. p.* 33;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 143.—B. Roxburghiana, *Lk.*—Gratiola verbenæfolia, *Colsm.*—G. ciliata, *Commers.*—G. racemosa, *Roxb. fl. ind.* 1, *p.* 138; *ed. Carey*, 1, *p.* 139; not Roth.—G. Roxburghiana, *Röm. and Sch.*—Tittmannia Colsmanni, *Benth. in Wall. Cat.*—Torenia gracilis, *Benth. ibid.*) ⊙ Peninsula of India. Bengal, (Serampore.) Burma. Silhet. Hindoosthan. China. Fl. small, blue, R. S.; fr. C. S.

5. *grandiflora*, Spreng. (*Benth. o. c. p.* 33;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 143;—B. Wightii, *Benth. in Wall. Cat*,—Gratiola grandiflora, *Roxb. Corom.* 2, *t.* 179; *fl. ind.* 1, *p.* 136; *ed. Carey*, 1, *p.* 137;—*Retz.?*—Henckelia grandiflora, *Lk.*) ⊙ Coromandel. Bombay. Bengal, (Serampore.) Fl. middle-sized, light blue, R. S.; fr. C. S.

6. *oppositifolia*, Spreng. (*Benth. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 143.—Gratiola oppositifolia, *Roxb. Corom.* 2, *t.* 155; *fl. ind.* 1, *p.* 139; *ed. Carey*, 1, *p.* 139;—*Retz.?*—Henckelia oppositifolia, *Lk.*) ⊙ Coromandel. Bombay. Bengal, (Serampore.) Fl. small, blue, R. S.; fr. C. S.

7. *tenuifolia*, Spreng. (*G. Don. o. c.* 538.—Gratiola tenuifolia, *Colsm.*) ⊙ China. Tavoy. Coromandel. Bengal, (Serampore.) Fl. small, blue, R. S.; fr. C. S.

8. *hyssopioïdes*, Benth. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 143.—Gratiola hyssopioïdes, *Roxb. Corom.* 2, *t.* 128; *fl. ind.* 1, *p.* 141; *ed. Carey*, 1, *p.* 142.) ⊙ Coromandel. Bombay. Bengal, (Serampore.) Silhet. Hindoosthan. China. Fl. small, blue, R. S.; fr. C. S.

9. *parviflora*, Benth. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 143.—Gratiola parviflora, *Roxb. Corom.* 3, *t.* 203; *fl. ind.* 1, *p.* 140; *ed. Carey*, 1, *p.* 141.) ⊙ Coromandel. Bombay. Burma. Silhet. Hindoosthan. Fl. small, blue or white. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

10. *rotundifolia*, Benth. (*o. c. p.* 34;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 143, excl. syn. Rheed.—Gratiola rotundifolia, *L.*; *Roxb. Corom.* 3, *t.* 204; *fl. ind.* 1, *p.* 137; *ed. Carey*, 1, *p.* 138.—G. debilis, *Heyne, in Wall. Cat.*) ⊙ Coromandel. Bombay. Ceylon. Bengal, (Serampore.) Fl. small, white, R. S.; fr. C. S.

11. *integrifolia*, (Gratiola integrifolia, *Roxb. fl. ind.* 1, *p.* 137; *ed. Carey*, 1, *p.* 138;—*Rheed.* 9, *t.* 57.) ⊙ Coromandel. Bengal, (Serampore.) Fl. smallish, blue, R. S.; fr. C. S.

Vandellia, L. (*Benth. scroph. ind. p.* 35;—*G. Don's Mill. dict.* 4, *p.* 547.)

1. *crustacea*, Benth. (*l. c.*;—*G. Don. o. c. p.* 548;—*J. Grah. Cat. B. pl. p.* 144; excl. syn. Rheed.—Capraria crustacea, *L.*—Torenia crustacea, *Cham. and Schlecht.*—T. lucida, *Buch. in Wall. Cat.*—Morgania lucida, *Spreng.*—Hornemannia ovata, *Lk. and Otto.*—Tittmannia ovata, *Reichb.*—Gratiola aspera, *Roth.*—G. lucida, *Roxb. Corom.* 3, *t.* 202; *fl. ind.* 1, *p.* 138; *ed. Carey*, 1, *p.* 138;—*Rumph.* 5, *t.* 170, *f.* 3.) ⊙ Moluccas. Coromandel. Bombay. Bengal, (Serampore.) Fl. small, indigo-coloured, R. S.; fr. C. S.

2. *Roxburghii*, G. Don. (*o. c. p.* 549;—*J. Grah. Cat. B. pl. p.* 144.—Vandellia diffusa, *Willd.*; not L.—Torenia diffusa, *Roxb. fl. ind.* 3, *p.* 95.) ⊙ Coromandel. Bombay. Bengal, (Serampore.) Fl. small, blue, R. S.; fr. C. S.

3. *varians*, G. Don. (*l. c.*—Torenia varians, *Roxb. fl. ind.* 3, *p.* 96.) ⊙ Coromandel. Bengal, (Serampore.) Fl. small, bluish, R. S.; fr. C. S.

4. *multiflora*, G. Don. (*l. c.*—Torenia multiflora, *Roxb. fl. ind.* 3, *p.* 96.) ⊙ Bengal, (Serampore.) Fl. small, bluish-white, R. S.; fr. C. S.

TORENIA, L. (*Benth. scroph. ind. p.* 38;—*G. Don's Mill. dict.* 4, *p.* 550.)

1. *asiatica*, L. (*Benth. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 144, excl. syn. Rheed.—*Lam. ill. t.* 523, *f.* 1.—T. cordifolia, *Benth. in Wall. Cat.*; not Roxb.—T. peduncularis, *Benth. l. c.*—T. diffusa, *Don. and Benth. l. c.*; not Roxb.—T. alba, *Buch.*—T. hians and vagans, *Roxb. fl. ind.* 3, *p.* 96.—T. hirsuta, *Willd.*—Gratiola alata, *Roxb. fl. ind.* 1, *p.* 137; *ed. Carey*, 1, *p.* 137?—Bonnaya alata, *Spreng.?*—Henckelia alata, *Lk.*?) ⊙ Coromandel. South Concan. Amboyna. Chittagong. Bengal, (Serampore,) &c. Fl. largish, generally blue, R. S.; fr. C. S.

2. *cordifolia*, Roxb. (*Corom.* 2, *t.* 161; *fl. ind.* 3, *p.* 95;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 144;—*B. M.* 66, *t.* 3715;—*Rheed.* 9, *t.* 68.) ⊙ Circars. South Concan. Bengal, (Serampore.) Mussooree. Fl. largish, bluish-purple, R. S.; fr. C. S.

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* *Gratiola officinalis*, L. Fl. dan. t. 363. ♃. Denmark. France, &c.—*G. linifolia*, Vahl. ♃. Portugal.—*G. aurea*, Pursh.; B. Cab. t. 1399. ♃. Carolina.—*G. tetragona*, Ell. ♃. S. Carolina.—*Beyrichia ocimoïdes*, Cham. and Schlecht. ♃. Rio Janeiro.—*Achetaria Sprengelii*, Cham. and Schlecht. ♃. Tropical Brazil.—*Peplidium humifusum*, Delile. ♃. Bombay. N. Africa.—*Stemodia maritima*, L. ♃. Jamaica.—*Mazus surculosus*, D. Don. ♃. Mussooree.—*M. rugosus*, Lour. ♃. Silhet. Seharunpore, &c.—*Mimulus strictus*, Benth. ♃. Rajmahl.—*M. parviflorus*, Lindl.; B. Reg. 11, t. 874. ⊙ Chili.—*M. floribundus* Dougl.; B. Reg. 14, t. 1125. ⊙ California.—*M. nepalensis*, Benth. Nepal.—*Uvedalia linearis*, R. Br. Tropical N. Holland.—*? Collinsia bicolor*, Benth. ⊙ California.—*C. parviflora*, Lindl.; B. Reg. 13, t. 1082. ⊙ N. America.—*Teedia lucida*, Rudolf; B. Reg. 3, t. 209. ♂ C. G. H.—*T. pubescens*, Burch.; B. Reg. 3. t. 214. ♂ C. G. H.

G. BÜCHNEREÆ, Benth.

(*In Hook. comp. Bot. Mag.* 1, *p.* 356;—*G. Don's Mill. dict.* 4, *p.* 582.)

STRIGA, Lour. (*fl. cochinch. p.* 22;—*Benth. o. c. p.* 361;—*G. Don. l. c.*)

1. *densiflora*, Benth. (*o. c. p.* 363;—*G. Don. l. c.*—Büchnera asiatica, *Vahl.?*—*L.* partly.—B. densiflora, *Benth. scroph. ind. p.* 41.) ♃ Peninsula of India, and the plains of India as far as Saharunpore. Fl. small, C. S.

2. *lutea*, Lour. (*fl. cochinch. p.* 22?—*Benth. l. c.*;—*G. Don. o. c. p.* 583.—Büchnera hirsuta, *Wall.*;—*Benth. scrophul. ind. p.* 41.—B. asiatica, *L.* partly.) ♃. Peninsula of India. Bengal. Saharunpore. Macao. Canton. Fl. yellow, C. S.

3. *euphrasioïdes*, Benth. (*l. c.*;—*G. Don. l. c.*—Büchnera euphrasioïdes, *Vahl.*—B. angustifolia, *D. Don. prod. fl. nep. p.* 91.—B. asiatica, L. partly.) 4. Java. Peninsula. Bengal, &c. to the Mountains of N. India.

H. BUDDLEËÆ, Benth.

(*G. Don's Mill. dict.* 4, *p.* 596.)

BUDDLEA, Houst. (*G. Don. l. c.*)

1. *diversifolia*, Vahl. (*G. Don. o. c. p.* 597;—*Benth. scroph. ind. p.* 43;—B. indica, *Lam.*) ♄ Java. In H. C. G.
2. *paniculata*, Wall. (*Roxb. fl. ind.; ed. Carey*, 1, *p.* 412;—*G. Don. l. c. p.* 599.) 5 Deyra-Dhoon. Fl. $6\frac{1}{2}$ lines, reddish-white, fragrant, Feb. March and April.
3. *Neemda*, Buch. (*Roxb. fl. ind.* 1, *p.* 396; *ed. Carey*, 1, *p.* 411;—*G. Don. o. c. p.* 600.—B. serrulata, *Roth.*—B. subserrata, *D. Don. prodr. fl. nep. p.* 92.) 5 Peninsula of India. Penang. Chittagong. Saharunpore. Oude. Deyra-Dhoon. Fl. 2 lines, white, almost inodorous, March, April and May; fr. R. S.
4. *madagascariensis*, Vahl. (*G. Don. o. c. p.* 601;—*B. M.* 55, *t.* 2824;—*B. Reg.* 15, *t.* 1259.) L. ♄ Madagascar. Fl. $4\frac{1}{2}$ lines, bright orange, March, April and May.

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* *Buddlea brasiliensis*, Jacq. fil.; B. M. 54, t. 2713. ♄ Tropical Brazil.—*B. globosa*, Lam.; B. M. 5, t. 174. ♄ Chili.—*B. heterophylla*, Lindl.; B. Reg. 15, t. 1259. ♄ S. America.—*B. thyrsoïdea*, Lam. ♄ Brazil.—*B. macrostachya*, Benth. ♄ Silhet.—*B. discolor*, Roth. ♄ Nepal. Oude. Rungpore.—*B. crispa*, Benth. ♄ Oude. Silhet.

I. VERONICEÆ, Benth.

(*Scroph. ind. p.* 43.)

VERONICA, Tournef. (*Benth. scroph. ind. p.* 44;—*G. Don's Mill. dict.* 4, *p.* 563.) *Speedwell.*

1. *foliosa*, Wall. and Kit. (*Hung.* 2, *p.* 106, *t.* 102;—*G. Don. l. c.*) 4. Hungary. Humid meadows about Halle, in Saxony. Fl. small, blue, C. S.
2. *maritima*, L. (*G. Don. l. c.*;—*fl. dan. t.* 374.) 4. N. Europe. A very variable plant. Fl. small, purple, C. S.
3. *spuria*, L. (*G. Don. l. c.*—V. amethystina, *Willd.*—V. rubella, *Pall.*) 4. S. Europe. Fl. small, blue, C. S.
4. *elatior*, Ehrh. (*G. Don. l. c.*—V. maritima, *Bieb.* excl. syn.) 4. S. Europe. Fl. small, blue, C. S.
5. *hybrida*, L. (*G. Don. o. c. p.* 366;—*E. B.* 10, *t.* 673.—V. spicata, *DC. fl. fr.*; not L.) 4. Europe. Fl. small, light blue, C. S.
6. *longifolia*, L. (*G. Don. o. c. p.* 365.—V. maritima, *Hoffm.* excl. syn.—V. ciliaris, *Hoffm.*—V. spuria *Schkuhr.* not L.—V. acuta, *Mart.*—V. urticæfolia, *Amm.*) 4. Humid meadows of Europe. Fl. small, blue, C. S.

7. *Anagallis*, L. (*G. Don. o. c. p.* 577;—*E. B.* 11, *t.* 781;—*fl. dan. t.* 903.—V. undulata, *Wall. Roxb. fl. ind.; ed. Carey*, 1, *p.* 147.) ⊙ Europe. Siberia. Levant. Virginia, &c. Silhet. Hindoosthan. Nepal. Kanowur. Fl. small, pale blue, or white lined with blue, or entirely white, Feb. and March; fr. April.

   β. *glanduloso-pubescens*. ⊙ Banks of the Hooghly, about Serampore. Fl. ½ line, pure white, Feb. and March; fr. April. Stem, branches, peduncles, pedicels, bractes, calyxes, and ovaries covered with a gland-tipped pubescence,

8. *agrestis*, L. (*G. Don. l. c.*;—*E. B.* 11, *t.* 783.) ⊙ Europe, Saharunpore. Fl. very small, pale blue, Feb. and March; fr. April.

Scoparia, L. (*G. Don's Mill. dict.* 4, *p.* 642;—*R. Br. prodr. p.* 443.)

1. *dulcis*, L. (*G. Don. l. c.*;—*R. Br. pr. l. c.*) ⊙ Native of every part of the world within the Tropics, common particularly near the sea. Fl. 1½ line, white, about Serampore; and fr. nearly throughout the year. An infusion of the plant is used by the Indians of S. America to cure agues. (*Humb.*)

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* *Veronica media*, Schrad. ♃. Hungary.—*V. australis*, Schrad. ♃. S. Europe.—*V. Crista galli*, Stev. ⊙ Cuba.—*V. virginica*, L. ♃. Virginia.—*Calorrhabdos Brunonianus*, Benth. ♃. Nepal.—*Scoparia flava*, Cham. and Schlecht. ♃. Brazil.—*S. multifida*, Cham. and Schlecht. ♄ Brazil.—*Aragoa cupressina*, H. B. and Kth. ♄ St. Fé de Bogota.—*A. abietina*, H. B. and Kth. ♄ St. Fé de Bogota.—*Hemiphragma heterophyllum*, Wall. tent. fl. nep. t. 8. ♃. Nepal.—*Sibthorpia europæa*, L.;—E. B. 10, t. 649. ♃. England. S. Europe.—*Disandra africana*, L. ♃. N. Africa.

K. Gerardiëæ, Benth.

Gerardia, L. (*Benth. scroph. ind. p.* 49;—*G. Don's Mill. dict.* 4, *p.* 556.)

1. *delphinifolia*, L. (*Benth. l. c.*;—*Hook. comp.* 1, *p.* 211, *t.* 11;—*Roxb. Corom.* 1, *t.* 90; *fl. ind.* 3, *p.* 98.—Sopubia delphinifolia, *G. Don's Mill. dict.* 4, *p.* 560;—*J. Grah. Cat. B. pl. p.* 145.) ⊙ Coromandel. The Concans. The Ghauts at Kandalla. Lohargan. (*Royle.*) Fl. largish, pale rose-coloured, R. and C. S.; fr. C. S.

Glossostylis, Cham. and Schlecht. (*Benth. in Hook. comp. Bot. Mag.* 1, *p.* 211;—*G. Don's Mill. dict.* 4, *p.* 561.)

1. *avensis*, Benth. (*L. c.*;—*G. Don. l. c.*—Hymenospermum dentatum, *Benth. in Wall. Cat.*) ⊙ Taong-Dong. Has been introduced into H. C. G.?

Centranthera, R. Br. (*Prodr. p.* 438;—*Benth. scroph. ind. p.* 50;—*G. Don's Mill. dict.* 4, *p.* 562.)

1. *hispida*, R. Br. (*l. c.*;—*Benth. l. c.*;—*G. Don. l. c.*;—*Wall. pl. as. rar.* 1, *t.* 45;—*J. Grah. Cat. B. pl. p.* 145.—C. nepalensis, *D. Don.*—Digitalis stricta, *Roxb. fl. ind.* 3, *p.* 99;—*Rheed.* 9, *t.* 78?) ⊙ Tropi-

cal N. Holland. Ram Ghaut. Coromandel. Prome. Bengal, (Serampore.) Hindoosthan. Nepal. Kemaon. Fl. middle-sized, deep purplish red, R. and C.; fr. C. S.

2. *humifusa*, Wall. (*Benth. scroph. ind. p.* 50;—*G. Don. o. c. p.* 563. —Razumovia tranquebarica, *Spreng.*) ⊙ Peninsula of India. Bengal, (Serampore.) Fl. smaller, but of the same colour with *No.* 1, R. and C. S.; fr. C. S.

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* *Gerardia grandiflora*, Benth. ♃. Mexico.—*G. densiflora*, Benth. ♃. Mexico.—*G. fasciculata*, Ell. ♃. S. Carolina.—*G. longifolia*, Nutt. ⊙ N. America.—*Esterhazia splendida*, Mikan. ♄ Tropical Brazil.—*Centranthera grandiflora*, Benth. ⊙ Khassya Mountains.—*C. Brunoniana*, Wall. Moulmein.

L. Rhinantheæ, Benth.

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* *Rhinanthus Crista galli*, L.; E. B. 10, t. 657. ⊙ Europe. America.—*R. orientalis*, L. ⊙ Levant.—*Pedicularis Chamissonis*, Stev. ⊙ Siberia.—*P. palustris*, L.; E. B. 6, t. 399. ⊙ Europe.—*P. sylvatica*, L.; E. B. 6, t. 400. ⊙ Europe. Siberia.—*Melampyrum cristatum*, L.; E. B. 1, t. 41. ⊙ North and Middle Europe.—*M. arvense*, L.; E. B. 1, t. 53. ⊙ England. S. Europe.—*M. pratense*, L.; E. B. 2, t. 113. ⊙ N. Europe. —*M. sylvaticum*, L.; E. B. 12, t. 804.—*Triphysaria versicolor*, Fisch. and Mey. ⊙ California.—*Euphrasia officinalis*, L.; E. B. 20, t. 1416. ⊙ Europe. Siberia. Himalaya. Cashmere.—*E. tricuspidata*, L. ⊙ Italy.—*E. aspera*, Brot. ⊙ Portugal.—*Odontites rubra*, Pers. (Euphrasia Odontites, L.; E. B. 20, t. 1415.) ⊙ Meadows of Europe and Siberia. —*Bartsia purpurea*, Duby. ⊙ S. France.—*B. viscosa*, L. (Rhinacanthus viscosus, Sm.; E. B. 15, t. 1045.) ⊙ England. France. Italy.—*B. versicolor*, Pers. ⊙ Italy. N. Africa.—*B. maxima*, Pers. ⊙ Candia.

ORDER CCIX.—SOLANACEÆ, Lindl. Nat. Syst. p. 293.

THE NIGHTSHADE TRIBE.

Herbs or shrubs, by Lindl. (excluding Brugmansia,) referred to 42 genera. Of these, Spreng. syst. enumerates about 280 for S. America, Mexico and the W. Indies; 25 for New Holland and Van Diemen's Land; 15 for North America; 15 for Europe; 10 for N. Africa; 4 for the Mascarenhas Islands; 4 for China; 4 for Madeira and the Canaries; 4 for Guinea; 3 for Madagascar; 2 for Arabia; 2 for Japan; 2 for Siberia; 1 for Caucasus, and 1 for Persia. Several of the European species are also natives of Tauria, Caucasus, the Orient and N. Africa. In S. Africa Harvey enumerates 50 species. According to Nees Von Esenbeck's synopsis of Indian Solaneæ, and

Royle's ill. 44 species have been discovered in the E. Indies; viz. 31 of *Solanum;* 4 of *Physalis;* 1 of *Anisodus;* 4-5 of *Datura;* 1 of *Hyoscyamus;* 1 of *Atropa;* and 1 of *Lycium.* Of these, Lycium europæum, Atropa acuminata, Hyoscyamus niger, Solanum laxum, lysimachioides, crassipetalum, rubrum, Physalis angulata, Datura ferox, and Anisodus luridus are from the Himalayas; the rest are all tropical.

" At first sight this family would seem to offer a strong exception to the general uniformity of structure and property, containing as it does the Deadly Nightshade and Henbane, and the wholesome Potato and Tomato; but a little inquiry will explain this apparent anomaly. The tubers of the Potato are well known to be perfectly wholesome when cooked, any narcotic property which they possess being wholly dissipated by heat. This is the case with other succulent underground stems in equally dangerous families, as the Cassava among Euphorbiaceæ; besides which, as DeCandolle justly observes,—' Il ne faut pas perdre de vue que tous nos alimens renferment une petite dose d'un principe excitant, qui, s'il y était en plus grande quantité, pourrait être nuisible, mais qui y est nécessaire pour leur servir de condiment naturel.' The leaves of all are narcotic and exciting, but in different degrees, from the Atropa Belladonna, which causes vertigo, convulsions, and vomiting, the well known Tobacco, which will frequently produce the first and last of these symptoms, the Henbane and Stramonium, down to some of the Solanum tribe, the leaves of which are used as kitchen herbs. It is in the fruit that the greatest diversity of character exists: Atropa Belladonna, Solanum nigrum, and others, are highly dangerous poisons; Stramonium, Henbane, and Physalis are narcotic; the fruit of Physalis Alkekengi is diuretic; that of Capsicum is pungent and even acrid; some species of Physalis are subacid, and so wholesome as to be eaten with impunity, (f. ex. the well known Tepariya;) and finally, the Egg plant, (Solanum Melongena, *Brinjal,*) and all the Tomato tribe of Solanum, yield fruits which are common articles of cookery. It is stated that the poisonous species derive their properties from the presence of a pulpy matter which surrounds the seeds; and that the wholesome kinds are destitute of this pulp, the pulp consisting only of what botanists call the sarcocarp, that is to say, the centre of the rind, in a more or less succulent state. It must also be remembered, that if the fruit of the Egg-plant is eatable, it only becomes so after undergoing a peculiar process, by which all its bitter acrid matter is removed, and that the Tomato is always exposed to heat before it is eaten." (*Lindl.*)

Lycium, L. (*G. Don's Mill. dict.* 4, *p.* 457.)

1. *afrum,* L. (*G. Don. o. c. p.* 459;—*B. Reg.* 5, *t.* 354;—*Lam. ill. t.* 112, *f.* 1;—*J. Grah. Cat. B. pl. p.* 140?) ♄ N. Africa. Spain. Fl. violet, rich purple above. Has been introduced into H. C. G. Fl.?
2. *barbarum,* L. (*G. Don. o. c. p.* 458, excl. Shaw and syn. Lam.—L. halimifolium, *Mill. dict.*) ♄ N. Asia. Africa. S. Europe. Fl. purple, with a yellow base. Has been introduced into H. C. G. Fl.?

CAPSICUM, Tournef. (*G. Don's Mill. dict.* 4, *p.* 444.)

1. *grossum,* Willd. (*G. Don. o. c. p.* 445;—*Röm. and Sch.;—Roxb. fl. ind.* 1, *p.* 574; *ed. Carey,* 2, *p.* 260;—*Nees. v. Esenb.*) কাফরি মরিচ *Kaphuri-murich.* ♄ Nepal? Cultivated all over India. Fl. smallish, white, and fr. the whole year.
2. *annuum,* L. (*G. Don. o. c. p.* 444; excl. syn. Rheed.—*Roxb. fl. ind.* 1, *p.* 573; *ed. Carey,* 2, *p.* 260.) ♄ S. America. Fl. smallish, white, and fr. the whole year.
3. *frutescens,* L. (*Hort. Cliff.*; not L. sp.—*G. Don. o. c. p.* 446;—*Willd.*; —*Röm. and Sch.;—Lour.;—Roxb. fl. ind.* 1, *p.* 574; *ed. Carey,* 2, *p.* 261;—*J. Grah. Cat. B. pl. p.* 139, excl. syn. Don.—Rheed. 9, t. 35. and B. M.—*Rheed.* 2, *t.* 56.—*Rumph.* 5, *t.* 88, *f.* 1 *and* 3.) লাল লঙ্কা মরিচ *Lal-lungka-murich.* ♄ Fl. small, white, and fr. the whole year. Fruit red.
   β. *flavum*; হলদী লঙ্কা মরিচ *Huldee-lungka-murich.* Fruit yellow.
4. *fastigiatum,* Bl. (*G. Don. l. c.*—C. frutescens, *L. sp*; not L. Hort. Cliff;—*Burm. ind.—Nees.;*—C. minimum, *Roxb. fl. ind.* 1, *p.* 574; *ed. Carey,* 2, *p.* 261; not Mill.) ধান লঙ্কা মরিচ *Dhan-lungka-murich. Cayenne-pepper capsicum.* ♄ S. America? Fl. smallish, white, and fr. the whole year.
5. *Chamæcerasus,* Nees. (*G. Don. l. c.*—C. cerasiforme, *Poir.*; not Willd.—C. purpureum, *Roxb. fl. ind.* 1, *p.* 573; *ed. Carey,* 2, *p.* 259.) ♄ Moluccas? Fl. smallish, purple, and fr. the whole year.
6. *baccatum,* L. (*G. Don. o. c. p.* 447; *Willd.;—H. B. and Kth.;—Roxb. H. B. p.* 17.—C. frutescens, β. *L. sp.—Rumph.* 5, *t.* 88, *f.* 2.) ♄ Tropical America. Cultivated in Guinea and India. Fl. smallish, whitish, and fr. the whole year.

SOLANUM, L. (*G. Don's Mill. dict.* 4, *p.* 400.) *Nightshade.*

1. *tuberosum,* L. (*G. Don. l. c.;—Roxb. fl. ind.; ed. Carey,* 2, *p.* 216, annot;—*H. B. p.* 16;—*J. Grah. Cat. B. pl. p.* 137.—Solanum tuberosum esculentum, *Bauh.*—Lycopersicum tuberosum, *Mill.*—Papas americanum, *Bauh.*—P. Pernanorum, *Besl.*—Batata peruviana, *Park.*) বিলাতি আলু *Bilati-aloo. Potatoe.* ♃. West Coast of S. America. Cultivated all over the world. Fl. middle-sized, white or blue, and fr. C. S.
2. *macrocarpon,* L. (*G. Don. o. c. p.* 410;—*Willd. sp.* excl. syn. Feuill. and Plum.;—*Dun.;—Roxb. H. B. p.* 16.) ♃. Peru. Fl. large, blue, and fr. the whole year.
3. *æthiopicum,* L. (*G. Don. l. c.;—Jacq. vind. t.* 12;—*Roxb. fl. ind.* 1. *p.* 568; *ed. Carey,* 2, *p* 250.—Lycopersicum æthiopicum, *Mill.*) ☉ Æthiopia. China. Japan. Mauritius? Fl. white, or violet, and fr. the whole year.
4. *Pseudocapsicum,* L. (*G. Don. o. c. p.* 411;—*Roxb. H. B. p.* 16;—*J. Grah. Cat. B. pl. p.* 137.) ♄ Madeira. Fl. small, white, and fr. the whole year.
5. *nodiflorum,* Jacq. (*Icon. rar.* 2, *t.* 326;—*G. Don. l. c.—Roxb. H. B.*

p. 16.) ♄ Guiana. Brazil. Mauritius. Fl. white, with a yellow base, and fr. the whole year.

6. *nigrum*, L. (*G. Don. o. c. p.* 412;—*E. B.* 8, *t.* 566.) ⊙ Europe. Fl. smallish, white, and fr. C. S.

7. *incertum*, Dun. (*Solan. p.* 155;—*Nees.*;—*G. Don. o. c. p.* 412;—*J. Grah. Cat. B. pl. p.* 137, excl. syn. L. Mill. Roxb. E. B. and Rumph.—S. nigrum, *Forsk.*—S. miniatum, *Bernh.*;—*Rheed.* 10, *t.* 73.) ⊙ Bengal. Silhet. Fl. small, white, and fr. C. S.

8. *rubrum*, Mill. (*Nees.*;—*G. Don. l. c.*)

α. erythropyrenum, (Solanum rubrum, *Mill.*;—*Roxb. fl. ind.* 1, *p.* 565; *ed. Carey*, 2, *p.* 246; excl. syn. Rheed.;—*Röm. and Sch.*;—*Dun.*—*Wight. icon.* 2, *t.* 344.—S. nigrum, γ. rubrum, *Willd.*—S. Rumphii, *Dun.*;—*Röm. and Sch.*—S. asperum, *Hornem.*—*Rumph.* 6, *t.* 26, *f.* 2.) গোড়ক্ষী *Gorkhee.* Fl. small, white, and fr. whole year. Berries red.

β. melanopyrenum, (Solanum oleraceum, *Rich. herb.*;—*Dun.*—*Röm. and Sch.*—S. nigrum, *Bl.*; not L.) ⊙ All over India. Java. Amboina. California. Fl. like those of *α.* Berries black.

9. *verbascifolium*, L. (*G. Don. o. c. p.* 415;—*Nees.*;—*R. Br. pr. p.* 444;—*Lour.*;—*Dun.*;—*Jacq.*—*Röm. and Sch.*;—*J. Grah. Cat. B. pl. p.* 138.—S. pubescens, *Roxb. fl. ind.* 1, *p.* 564; *ed. Carey*, 2, *p.* 244; not Willd.) অরস *Urus.* ♄ All over India. N. Holland. America. Fl. 5 lines, white, green-veined, and fr. the whole year.

10. *auriculatum*, Ait. (*G. Don. l. c.*;—*Nees.*;—*Dun.*;—*Röm. and Sch.*;—*Roxb. fl. ind.* 1, *p.* 564; *ed. Carey*, 2, *p.* 245;—S. mauritianum, *Scop.*) ♄ Madagascar. Bourbon. Mauritius. Fl. small, lively blue-purple, R. and C. S.; fr. Dec. to May.

11. *byrsinum*, (S. coriaceum, *Hook*;—*B. M.* 54, *t.* 2708;—*G. Don. o. c. p.* 418. not Dun.—*G. Don. o. c. p.* 428.) ♄ Mexico. Fl. largish. pale blue. Introduced in 1841.

12. *spirale*, Roxb. (*fl. ind.* 1, *p.* 566; *ed. Carey*, 2, *p.* 247;—*Nees.*;—*G. Don. o. c. p.* 419.) ♄ Silhet. Assam. Fl. white, smallish, and fr. several times a year.

13. *decemdentatum*, Roxb. (*fl. ind.* 1, *p.* 565; *ed. Carey*, 2, *p.* 247;—*G. Don. o. c. p.* 421.—S. decemfidum, *Wall. Cat.*;—*Nees.*) ⊙ China. Singapore. Fl. smallish, white, and fr. the whole year.

14. *torvum*, Swz. (*G. Don. o. c. p.* 430;—*Willd.*;—*Dun.*;—*Röm. and Sch.*;—*Nees.*;—*Wight. icon.* 2, *t.* 345.—S. stramonifolium, *Lam.*;—*Poir.*;—*Roxb. fl. ind. ed. Carey*, 2, *p.* 256;—*H. B. p.* 17; not Jacq.—S. ferrugineum, *Jacq.*;—*Willd.*;—*Dun.*;—*Röm. and Sch.*—S. ficifolium, *Ort.*;—*Cavan.*—S. scabrum, *Ruiz. and Pav.*;—*Poir.*—S. saponaceum, *Dun.*;—*Poir*;—*Röm. and. Sch.*;—not Hook. B. M.—S. pseudosaponaceum, *Bl.*) গোট বেগুণ *Goto-begoon.* L. ♄ Bengal, (Serampore.) &c. Jamaica. Hispaniola. Bermuda Islands Fl. 8-9 lines, white, and fr. nearly the whole year.

15. *Melongena*, L. (*G. Don. o. c. p.* 432;—*Nees.*)

a. Fertile peduncle solitary, often with a small raceme of sterile flowers.

aa. Stem, leaves, and calyxes, unarmed, or nearly so. (Solanum ovigerum, *Dun.*—*Röm. and Sch.*;—*Bl.*—S. Melongena, *L.*—*Willd. Roxb. fl. ind.* 1, *p.* 566; *ed. Carey*, 2, *p.* 248;—*Lour.*;—*J. Grah. Cat. B. pl. p.* 138, partly.—S. pseudo-undatum, *Bl.*;—*Rumph.* 5, *t.* 85.) বেগুণ *Begoon. Brinjal. Egg-plant.* ♃. All over India. Fl. largish, violet, C. S.; fr. H. S.

ββ. Stem, leaves, and calyxes more or less aculeate. (Solanum esculentum, *Dun.*;—*Röm. and Sch.*—S. Melongena, *L. suppl.*;—*Roxb. l. c.* partly;—*Lour.* partly.—S. insanum, *L.*; *Willd.*; not Roxb.—S. longum, *Roxb. fl ind.* 1, *p.* 567; *ed. Carey*, 2, *p.* 248;—*Rheed.* 10, *t.* 74.) কুলি বেগুণ *Kooli-begoon. Long Brinjal.* ♃. Like *aa.* cultivated all over India. Fl. largish, bright bluish-purple, C. S.; fr. H. S.

The fruit of each of these varieties is either ovate-oblong or oblong, violet or white;—or globular (larger and smaller), violet; or more and less globular, white, or white striped on a violet ground.

β. Fertile, peduncle racemose-corymbose, 3-4 flowered; stem, leaves, and calyxes aculeate; fruit smaller, ovate, or somewhat globular, in some enclosed within the calyx. (Solanum Melongena spontaneum;—S. insanum, *Roxb. fl. ind.* 1, *p.* 568;—*ed. Carey*, 2, *p.* 249; excl. syn. Rumph. not L.—S. undatum, *Lam.*;—*Bl.*—S. incanum, *L.*;—*Dun.*;—*Röm. and Sch.*—S. Zeylanicum, Scop. ♃. Moluccas. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

16. *sodomeum*, L. (*G. Don. o. c. p.* 433;—*Lam. ill. No.* 2358, *t.* 115, *f.* 1;—*R. Br. prodr. p.* 446;—*Roxb. H. B. p.* 17;—*Sibth. and Sm. fl. gr. t.* 235.) ♄ S. Europe. N. Africa. N. Holland. C. G. H. Brazil. Fl. purple. Introduced into H. C. G. in 1798, but had not fl. up to 1814.

17. *marginatum*, L. (*G. Don. o. c. p.* 434;—*Jacq. icon. rar.* 1, *t.* 45;—*Dun. solan. p.* 215, *t.* 3;—*B. M.* 44, *t.* 1928.) ♄ Palestine. Fl. large, white, with a central purple star. Introduced into H. C. G. before 1814, but had not flowered then.

18. *campechiense*, L. (*G. Don. l. c.*;—*Willd. sp.*; excl. syn. L. Mant.—S. acanthifolium, *Mill.*) ⊙ Campeche Bay. Fl. pale, violet. Introduced in 1841.

19. *indicum*, L. (*G. Don. o. c. p.* 433;—*Nees.*;—*Roxb. fl. ind.* 1, *p.* 570; *ed. Carey*, 2, *p.* 252;—*Wight. icon.* 2, *t.* 346;—*J. Grah. Cat. B. pl. p.* 138; excl. syn. Rumph.;—*Burm. zeyl. t.* 102;—*Lour.*;—S. violaceum, *Jacq.*;—*Röm. and Sch.*;—*Dun.*;—*G. Don. o. c. p.* 437.—S. canescens, *Bl.*;—*Rheed.* 2, *t.* 36.) ব্যাকুড় *Byakoor.* L. ♄ All over India. Fl. middle-sized, blue, and fr. the whole year.

20. *ferox*, L. (*G. Don. o. c. p.* 435;—*Willd.*;—*Röm. and Sch.*;—*Dun.*; *Nees.*;—*J. Grah. Cat. B. pl. p.* 139.—S. involucratum, *Bl.*—S.

lasiocarpum, *Dun.*;—*Röm. and Sch.*—*Blume*;—*Wall.*—S. hirsutum, *Roxb. fl. ind.* 1, *p.* 571; *ed. Carey*, 2, *p.* 253.—S. mammosum, *Lour.*—*Rheed.* 2, *t.* 35.) রাম বেগুন *Ram-begoon.* ♃. Cochin-China. Penang. Singapore. Coromandel. S. Concan. Bengal, (Serampore.) Fl. largish, white, R. S.; fr. C. S.

21. *trilobatum*, L. (*G. Don. o. c. p.* 437;—*Nees.*;—*Dun.*;—*Röm. and Sch.*;—*Burm. ind. t.* 22, *f.* 2;—*Roxb. fl. ind.* 1, *p.* 574; *ed. Carey*, 2, *p.* 253;—*J. Grah. Cat. B. pl. p.* 138.—S. acetosæfolium; *Lam.*;—*Poir.*;—*Dun.*;—*Röm. and Sch.*—*Spreng.*) ♄ ◡. Coromandel. Guzerat. Deccan. Soonderbuns. Jamaica. Fl. largish, bluish-purple, and fr. nearly the whole year.

22. *Jacquini*, Willd. (*G. Don. o. c. p.* 437;—*Nees.*;—*J. Grah. Cat. B. pl. p.* 139, excl. syn. S. chinense, *Dun.*)

α. Fruit larger, plant less armed. (Solanum diffusum, *Roxb. fl. ind.* 1. *p.* 568; *ed. Carey*, 2, *p.* 250.—S. xanthocarpum, *Schrad. and Wendl.*; *sert. Lannov.* 1, *t.* 2;—*Willd.*;—*Dun.*;—*Rom. and Sch.*; *G. Don. o. c. p.* 438.) ♃. Coromandel. Elephanta. Bombay. Deccan, &c. Fl. largish, bluish-purple, R. and C. S.; fr. C. S.

β. Fruit smaller; plant strongly armed. (Solanum Jacquini, *Willd.*;—*Dun.*;—*Röm. and Sch.*;—*Roxb. fl. ind.* 1, *p.* 569; *ed. Carey*, 2, *p.* 251.—S. virginianum, *Jacq.*; not L.) কণ্টকারী *Kanta-karee.* ♂. Bengal, (Serampore,) &c. Fl. largish, bright-blue, and fr. whole year.

23. *pentapetaloïdes*, Roxb. (*H. B. p.* 17.) ♂. Brazil. In H. C. G. fl. and fr. the whole year.

Lycopersicum, Tournef. (*G. Don's Mill. dict.* 4, *p.* 443.)

1. *esculentum*, Mill, (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 139;—*Dun.*;—*Röm. and Sch.*;—*Nees.*—L. Pomum amoris, *Mönch.*—L. Galeni, *Tournef.*—Solanum Lycopersicum, *L.*; *Lam. ill. t.* 115, *f.* 2;—*Lour.*;—*Roxb. fl. ind.* 1, *p.* 565; *ed. Carey*, 2, *p.* 245.—Pomum amoris, *Blackw. t.* 133;—*Rumph.* 5, *t.* 154, *f.* 1.) গোধ বেগুন *Godh-begoon. Love-apple. Tomato.* ⊙ S. America. Domesticated in India. Fl. small, cream-coloured, C. S; fr. H. S.

2. *cerasiforme*, Dun. (*G. Don. l. c.*—L. Galeni, *Mill.* not Tournef. Solanum Lycopersicum, *L.* β;—S. Pseudo-lycopersicum, *Murr.*;—*Jacq. vind.* 1, *t.* 11;—*Ruiz. and Pav.*—S. spurium, *Gmel.*—Pomum amoris, *Rumph.* 5, *p.* 416, "*Altera species*," &c.) ⊙ Peru. Scarcely distinct from *No.* 1. Domesticated in India.

3. *Humboldtii*, Dun. (*G. Don. l. c.*;—*Nees.*;—*Röm. and Sch.*—Solanum Humboldtii, *Willd.*—S. Lycopersicum, *Roxb. fl. ind.* 1, *p.* 565; *ed. Carey*, 2, *p.* 245, partly.) ⊙ S. America. Domesticated in India. Fl. and fr. as in *No.* 1.

Physalis, L. (*G. Don's Mill. dict.* 4, *p.* 447.) *Winter Cherry.*

1. *somnifera*, Nees. (*Lk.*;—*G. Don. o. c. p.* 448;—*J. Grah. Cat. B. pl. p.* 139.)

a. flexuosa. (Physalis flexuosa, *L.—Willd.;—Röm. and Sch.;—Roxb. fl. ind.* 1, *p.* 561; *ed. Carey,* 2, *p.* 240;—*Rheed.* 4, *t.* 55.) অশ্ব গন্ধা *Ushwa-gunda.* ♄ Coromandel. Both the Concans. Guzerat. Bengal, (Serampore.) Fl. $3\frac{1}{2}$ lines, pale greenish, R. and C. S.; fr. H. S. Rheed. l. c. says that this plant is a middle-sized tree. (Arbor justæ magnitudinis.) In all other respects it answers to the common Physalis flexuosa of L. and Roxb.

2. *peruviana,* L. (*Willd. sp.;—Lk.;—Röm. and Sch.;—G. Don. o. c. p.* 449.—*Roxb. fl. ind.* 1, *p.* 562; *ed. Carey,* 2, *p.* 241, partly;—*J. Grah. Cat. B. pl. p.* 140.—P. pubescens, *L. herb.* not Hort. cliff.;—*Ruiz. and Pav.—R. Br. pr. p.* 447;—*Röm. and Sch.;—Spreng.*—P. esculenta, *Willd.;—Röm. and Sch.*—P. tomentosa, *Medic.*—P. tuberosa, *Zucc.*—P. latifolia, *Lam.;—Röm. and Sch.*—P. barbadensis, *Lam.;* not Jacq.—P. edulis, *Sims.;—B. M.* 27, *t.* 1068.) তেপরিয়া *Tepuriya.* ♃. Peru. Antilles. Much cultivated in India. N. Holland, &c., on account of its largish, yellowish, palatable berries, *here* generally called *Gooseberries.* Fl. small, yellowish, C. S.; fr. H. S.

3. *pubescens,* L. (*Hort. cliff.;—Lam.; Pursh.;—G. Don. l. c.*—P. pruinosa, *L.; Willd.*—P. barbadensis, *Jacq.;—Willd.;—Röm. and Sch.;—Hornem.;* not Lam.) ☉ America. India, where it is perhaps only cultivated. Fl. and fr. as in *No.* 2.

4. *Alkekengi,* L. (*G. Don. o. c. p.* 448;—*Sibth. and Sm. fl. gr. t.* 234;—*Roxb. fl. ind.* 1, *p.* 562; *ed. Carey,* 2, *p.* 241.—P. Halicacabum. *Scop.*—Alkekengi officinarum, *Tourn.*) ♃. S. Europe. Persia. Fl, small, dirty white. Does not thrive in Bengal.

5. *minima,* L. (*Hort. cliff.;—G. Don. o. c. p.* 450;—*Roxb. fl. ind.* 1, *p.* 563; *ed. Carey,* 2, *p.* 242;—*J. Grah. Cat. B. pl. p.* 140.—P. villosa, *Roth.*—P. Rothiana, *Röm. and Sch.*—P. parviflora, *Lag.;—Willd.;—R. Br.—Röm. and Sch.*—P. Lagascæ, *Rom. and Sch.*—P. indica, *Lam.*—P. pseudo-angulata, *Bl.*—P. Alkekengi, *Lour.;* not L.—Nicandra indica, *Röm. and Sch.;—Rheed.* 10, *t.* 70;—*Rumph.* 6, *t.* 26, *f.* 1.) বন তেপরিয়া *Bun-tepuriya.* ☉ Tropical N. Holland. Moluccas. Cochin-China. Java. Ceylon. Peninsula of India. Bengal, (Serampore.) Hindoosthan. Nepal. Fl. small, uniformly pale yellow, R. and C. S.; fr. C. S.

6. *angulata,* L. (*G. Don. o. c. p.* 450;—*Nees;—Willd.;—Röm. and Sch.* excl. β.—*Roxb. H. B. p.* 16.—P. obscura, *Pursh.* α.) ☉ E. and W. Indies. Introduced from Malacca into H. C. G., fl. R. and C. S.; fr. C. S.

Nicandra, Adans, (*G. Don's Mill. dict.* 4, *p.* 457.)

1. *physaloïdes,* Gärtn. (*fr.* 2, *p.* 237, *t.* 131, *f.* 2;—*G. Don. l. c.;—J. Grah. Cat. B. pl. p.* 140.—*B. M.* 51, *t.* 2458;—*Pers.;—Pursh.;—Nutt.;—Willd.;—Röm. and Sch.*—Atropa physaloides, *L.;—Jacq. obs.* 4, *t.* 98;—*Roxb. H. B. p.* 16.—Physalis daturæfolia, *Lam.*—

Calydermos crosus, *Ruis. and Pav.*) ⊙ Peru. Chili. N. America. Fl. large, pale blue, rayed, with a whitish bottom, which is marked with five dark blue spots, Feb. and March; fr. H. S.

SOLANDRA, Swz. (*G. Don's Mill. dict.* 4, *p.* 475.)

1. *grandiflora*, Swz. (*G. Don. l. c.*;—*B. M.* 44, *t.* 1874;—*Roxb. H. B. p.* 16.—S. scandens, *Willd.*—Swarzia grandiflora, *Gmel.*—Datura sarmentosa, *Lam.*) ♄ ⌣ Jamaica. Fl. 7 inches, outside greenish-yellowish, inside yellowish and streaked with dark purple, sweet scented, Dec. and Jan.; fr. April and May.
2. *viridiflora*, Sims. (*B. M.* 45, *t.* 1948;—*G. Don. l. c.*) ♄ Rio Janeiro. Fl. very large, pale green. Introduced in 1841.

DATURA, L. (*G. Don's Mill. dict.* 4, *p.* 427.) *Thorn-apple.*

1. *alba*, Rumph. (*Nees.*;—*G. Don. o. c. p.* 474;—*J. Grah. Cat. B. pl. p.* 141, excl. Rumph. 5, t. 87, f. 2. syn. L. and B. M.—D. Metel, *Roxb. fl. ind.* 1, *p.* 561; *ed. Carey*, 2, *p.* 238; not L.—*Rheed.* 2, *t.* 28.—*Rumph.* 5, *t.* 87, *f.* 1.) ধুতুরা *Dhootooro.* ⊙ All over India. Fl. very large, white, and fr. the whole year. A strong narcotic, in India frequently and sometimes fatally employed by thieves and other rogues, to deprive their victims of the power of resistance.
2. *Metel*, L. (not Roxb.—*G. Don. l. c.*;—*Nees.*;—*B. M.* 35, *t.* 1440.) ⊙ N. Africa. Canaries. Fl. like those of *No.* 1, Feb. and March; fr. H. S. Poisonous like *No.* 1.
3. *fastuosa*, Mill. (*G. Don. l. c.*;—*Willd.*;—*Röm. and Sch.*;—*Nees.*;—*Roxb. fl. ind.* 1, *p.* 561; *ed. Carey*, 2, *p.* 238;—*J. Grah. Cat. B. pl. p.* 141, excl. D. dubia, Pers.) কাল ধুতুরা *Kala-dhootooro.* ⊙ All over India. Fl. very large, outside dark purple, inside whitish, and fr. whole year. More virulently poisonous than *No.* 1.
   α. simplex, (*Rheed.* 2, *t.* 29.) Fl. single.
   β. plena, (*Rheed.* 2, *t.* 30;—*Rumph.* 5, *t.* 87, *f.* 2.)
4. *ferox*, L. (*Amoen. acad.*;—*G. Don. l. c.*;—*Nees.*;—*Willd.*;—*Mill.*—D. Stramonium, β. canescens, *Wall.*;—*Roxb. fl. ind.*; *ed. Carey*, 2, *p.* 239.—Stramonium ferox, *Zan.*) ⊙ China. Cochin-China. Mountains of N. India. Nepal.—Fl. very large, white, and fr. whole year. Used by the Chinese for the same purposes as *No.* 1 by the Hindoos.
5. *Stramonium*, L. (*G. Don. l. c.*;—*Nees.*;—*Ruiz. and Pav.*;—*Pursh.*; *E. B.* 18, *t.* 1288;—*Roxb. H. B. p.* 16.—D. loricata, *Sieb.*—D. Pseudostramonium, *Sieb.*—D. capensis, *Hortul.*—Stramonium vulgare, *Mönch.*—S. foetidum, *Scop.*—S. vulgatum, *Gärtn. fr.* 2, *p.* 243, *t.* 132, *f.* 4.—S. spinosum, *Lam.*) *Common Thorn-apple.* ⊙ America. Naturalized in Europe, N. Asia, and N. Africa. Fl. and fr. like *No.* 4, of which it is, perhaps, only a variety.
6. *Tatula*, L. (*G. Don. l. c.*;—*Swt. fl. gard. t.* 83;—*Nees*;—*Mill.*;—*Willd.*;—*Röm. and Sch.*;—*Spreng.*;—*Pursh.*;—*Roxb. H. B. p.* 16.) ⊙ America; naturalized in the same places with the preceding species. Fl. large, white, Feb. and March; fr. H. S.

7. *inermis*, Jacq. (*Hort. vind.* (1770-76,) 3, *t.* 82;—*G. Don o. c. p.* 473. —D. lævis, *L. fil. suppl.* (1781;)—*Willd.*;—*Spreng.*—Stramonium læve, *Mönch.*) ⊙ Abyssinia. Fl. large, white, Feb. and March; fr. H. S.
8. *suaveolens*, Willd. (D. arborea, *Mill. dict.* excl. syn. and descript.—Stramonium arboreum, *Mönch.*—Brugmansia (Pers. not Bl.) suaveolens, *G. Don's Mill. dict.* 4, *p.* 475.) L. ♄ Peru. Chili. Mexico. Fl. $10\frac{1}{2}$ inches, white cream-coloured, in the evening fragrant, C. and H. S.; fr. 0.

Nicotiana, Tourn. (*G. Don's Mill. dict.* 4. *p.* 462.) *Tobacco.*

1. *Tabacum*, L. (*G. Don. l. c.*;—*Roxb. H. B. p.* 16.—*J. Grah. Cat. B. pl. p.* 140;—*Desf.*;—*Pursh*;—*Ruiz. and Pav.*;—*Lam. ill. t.* 113;—*Gärtn. fr.* 1, *p.* 264, *t.* 55, f. 11.—N. havanensis, *Lag.*;—*Roxb. H. B. p.* 16.) *Common Tobacco.* তমাক *Tumak.* ⊙ America. Cultivated all over the world. Fl. large, rose-coloured, C. S.; fr. H. S.
2. *paniculata*, L. (*G. Don. o. c. p.* 464;—*Ruiz. and Pav.*;—*Lehm. nicot.*; *Roxb. H. B. p.* 16.—N. viridiflora, *Cav. Feuill. per. t.* 10.) ⊙ Peru, near Patabilca, on the sea-shore. Fl. largish, greenish, C. S.; fr. H. S.
3. *fruticosa*, L. (*G. Don. l. c.*;—*Lehm. nicot.*;—*Roxb. H. B. p.* 16.—N. frutescens, *Cav.*) ♄ C. G. H. Fl. large, rose-coloured, C. S.; fr. H. S.
4. *rustica*, L. (*G. Don. o. c. p.* 465;—*Roxb. H. B. p.* 16.) ⊙ Europe. Asia. Africa. America. ⊙ Fl. largish, greenish-yellow, C. S.; fr. H. S. This is commonly called *English Tobacco*, from having been the first introduced there. (*Mill. dict.*)
5. *plumbaginifolia*, Viv. (*G. Don. o. c. p.* 466;—*Lehm. nicot.*—N. crispa. *Jacq. fragm. t.* 84;—*Desf.*—N. cerinthoïdes, *Vittm.*; not Hornem.) ⊙ Rio Grande. Fl. middle-sized, white, below fuscescent, and fr. nearly the whole year. Domesticated about Serampore.
6. *bonariensis*, Lehm. (*Nicot.*;—*G. Don. l. c.*) ⊙ Buenos Ayres. Fl. middle-sized, white, Feb. and March; fr. H. S.
7. *quadrivalvis*, Pursh. (*G. Don. l. c.*;—*B. M.* 43, *t.* 1778;—*Roxb. H. B. p.* 16.) ⊙ N. America, at the Missouri-river. Fl. largish, bluish-white, C. S.; fr. H. S.
8. *glutinosa*, L. (*Spec.*—*B. Repos. t.* 484;—*Ruiz. and Pav.*;—*Lehm. nicot.*; *Roxb. H. B. p.* 16.—N. militaris, *L. act. holm.* (1753,) 15, *p.* 44, *t.* 2.—Tabacus viridis, *Mönch.*—Sairanthus glutinosus, *G. Don. o. c. p.* 467.) ⊙ Peru, in temperate places near Guancabamba, and elsewhere in S. America. Fl. rose-coloured. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

Petunia, Juss. (*G. Don's Mill. dict.* 4, *p.* 467.)

1. *nyctaginiflora*, Juss. (*G. Don. o. c. p.* 468;—*B. M.* 52, *t.* 2552.—Nicotiana axillaris, *Lam.*—N. nyctaginiflora, *Lehm.*) ♃. S. America, at the mouth of the river Plata. Fl. large, greenish-white, Feb. and March; fr. H. S.

HYOSCYAMUS, Tourn. (*G. Don's Mill. dict.* 4, *p.* 471.) *Henbane.*

1. *niger*, L. (*G. Don. l. c.*—*E. B.* 9, *t.* 891.—H. flavus, *Fuchs.*) *Common Henbane.* ♂ Europe. Caucasus. N. India. Fl. largish, straw-coloured, reticulated with dark purple veins, C. S.; fr. H. S.

   β. *agrestis*, Nees. (H. agrestis, *Kit.*—*Schult.*;—*Röm and Sch.*;—*Swt. fl. gard.* 1, *t.* 27;—*Mart. and Koch.*;—*G. Don. l. c.*—H. niger, *Wall.*—*Roxb. fl. ind.*; *ed. Carey*, 2, *p.* 237.—H. niger, β. annuus, *Sims.*; *B. M.* 50, *t.* 2394.) ⊙ Futtighur. Delhi. Sasseram. Fl. largish, minutely reticulated with purple veins on a pale rose-coloured and yellowish ground, marked with a dark purple throat, Feb. and March; fr. H. S.

2. *albus*, L. (*G. Don. l. c.*;—*Gärtn. fr.* 1, *p.* 369, *t.* 75, *f.* 8;—*Lam. ill. t.* 117, *f.* 2;—*Sibth. and Sm. fl. gr. t.* 230.) ⊙ S. Europe. Tauria. Fl. largish, greenish yellow, with a white or greenish throat, Feb. and March; fr. H. S.

3. *canariensis*, Ker. (*B. Reg.* 3, *t.* 130;—*G. Don. o. c. p.* 472.) ♄ Canaries. Fl. largish, pale yellowish, with a dark purple throat, March and April; fr. May.

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* *Lycium chinense*, Mill. ♄ Canton. Cochin China.—*Ancistus arborescens*, Schlecht. ♄ Martinique. Jamaica. Brazil.—*Grabowskia boerhaaviæfolia*, Schlecht; B. Reg. 23, t. 1985. ♄ Brazil.—*G. duplicata*, Arn. B. M. 67, t. 3841. ♄ Brazil.—*Capsicum havanense*, H. B. and Kth. ♄ Cuba.—*C. bicolor*, Jacq.; B. M. 43, t. 1835. ♄ W. Indies.—*C. sinense*, Jacq. hort. vind. 3, t. 67. ♄ China.—*Solanum Seaforthianum*, Andr.; B. Reg. 12, t. 969. ♄ ◡ Barbadoes.—*S. muricatum*, Ait. ♄ Peru. Mexico.—*S. Tweedianum*, Hook.; B. M. 62, t. 3385. ♃ Buenos Ayres.—*S. Radula*, Vahl. ♄ Cayenne.—*S. Swartzianum*, Röm. and Sch. ♄ Brazil.—*S. argenteum*, Dun. ♄ Rio Janeiro.—*S. havanense*, Jacq. ♄ Martinique. Jamaica.—*S. nudum*, Dun. ♄ Mexico.—*S. racemosum*, Jacq. ♄ Martinique.—*S. igneum*, L. ♄ W. Indies. Guiana.—*S. tetrandrum*, R. Br. ♃ Tropical N. Holland.—*S. uniflorum*, Dun. ♄ St. Domingo.—*S. macrodon*, Wall. ♄ Khassya Mountains.—*S. crassipetalum*, Wall. ♄ Nepal.—*S. denticulatum*, Bl. ♄ Silhet.—*S. obtusifolium*, Dun. ♄ Mexico.—*S. bahamense*, L. ♄ Bahama Islands.—*S. molle*, Dun. ♄ Caraccas.—*S. polyacanthum*, Lam. ♄ Island of Dominica.—*S. microphyllum*, Dun. ♄ W. Indies.—*S. crotonoïdes*, Lam. ♄ W. Indies.—*S. cordifolium*, Dun. ♄ Rio Janeiro.—*S. jamaicense*, Swz. ♄ Jamaica.—*S. giganteum*, Jacq. B. M. 44, *t.* 1921. ♄ C. G. H. Neelgheries.—*S. platanifolium*, Sims.; B. M. 53, t. 2618. ♄ S. America.—*S. mammosum*, L. ⊙ Virginia. Guiana. W. Indies.—*S. amazonium*, Ker.; B. Reg. 1, t. 71. ♄ Mexico.—*Physalis viscosa*. L. ♃. Brazil.—*P. Walteri*, Nutt. ♃. S. Carolina.—*P. curassavica*, L. ♃. Curaçao.—*Witheringia stramonifolia*, H. B. and Kth. ♄ Mexico.—*Saracha procumbens*, Ruiz. and Pav. ⊙ Peru.—

S. umbellata, DC.; Swt. fl. gard. t. 85. ⊙ Peru.—*S. viscosa*, Schrad.; Swt. fl. gard. n. s. t. 323. ♄ Mexico.—*Anisodus stramonifolius.* (A. luridus, Lk. Physalis stramonifolia, Wall.) Gossain Than.—*Netouxia formosa*, H. B. and Kth. 4. Mexico.—*Jaborosa integrifolia*, Lam.; B. M. 63, t. 3489. 4. Buenos Ayres.—*Solandra guttata*, D. Don.; B. Reg. 18, t. 1551. ♄ Mexico.—*Datura discolor*, Bernh. ⊙ W. Indies. —*D. ceratocaula*, Ort.; B. Reg. 12, t. 1031. ⊙ Cuba. Mexico.—*D. candida.* (Brugmansia candida, Pers. Datura arborea, L. not Mill.) ♄ N. Granada. Peru. Chili. Has already been introduced at Bombay.—*Nierembergia calycina*, Hook.; B. M. 62, t. 3371. 4. Buenos Ayres.—*N. gracilis*, Hook.; B. M. 58, t. 3108. 4. Buenos Ayres.—*N. filicaulis*, Lindl.; B. Reg. 19, t. 1649. 4. Buenos Ayres.—*Nicotiana cerinthoïdes.* Hornem. ⊙ Country unknown.—*N. Langsdorffii.* Weinm.; B. M. 48, t. 2221, and 52, t. 2555. ⊙ Brazil.—*N. humilis.* Lk., not Ehret. ⊙ Country unknown.—*N. vincæflora*, Lag. 4. S. America.—*N. persica*, Lindl., B. Reg. 19, t. 1592. ⊙ Persia. Has been introduced at Bombay.—*N. angustifolia*, Ruiz. and Pav. ⊙ Chili.—*N. rotundifolia*, Lindl. ⊙ Swan-river.—*Petunia parviflora*, Juss. 4. Mouth of the Plata-river.—*P. violacea*, Lindl.; B. Reg. 19, t. 1626. 4. Buenos Ayres.—*P. intermedia*, Lindl.; B. Reg. 23, t. 1931. 4. Buenos Ayres.—*Scopolia carniolica*, Jacq.; B. M. 28, t. 1126. 4. Bavaria. Austria. Hungary.—*Hyoscyamus pallidus.* Wald. and Kit. ⊙ Hungary. —*H. muticus*, L. ♂ Arabia. Egypt.—*H. pusillus*, L. ⊙ Egypt.—*H. auriculatus*, Ten. ⊙ Naples.—*Triguera ambrosiaca*, Cav. ⊙ Spain.—*T. inodora*, Cav. ⊙ Spain.—*Lamarkia* (not Mönch.) *coccinea*, Rich. ♄ Cayenne.—? *Meyenia* (not Nees.) *fasciculata*, Schlecht. ♄ Mexico. —? *M. corymbosa*, Schlecht. ♄ Mexico.

ORDER CCX.—CESTRACEÆ, Lindl. Nat. Syst. p. 296.

Shrubs, by Lindl. referred to 4 genera. Of these, Spreng syst. enumerates 36 species for S. America, Mexico, and the W. Indies; 5 of uncertain origin; and 1 (Cestrum venenatum, Thunb.) for S. America. Cestrum oppositifolium, Lam. is put down as a native of "Africa."

CESTRUM, L. (*G. Don's Mill. dict.* 4, *p.* 480.)

1. *foetidissimum*, Jacq. (*Schönbr.* 3, *t.* 329;—*G. Don. o. c. p.* 482.) ♄ W. Indies. Fl. 10½ lines, pale greenish-yellowish, nearly the whole year. fr. 0.
2. *laurifolium*, L'Herit. ♄ S. America, Jan. 1840.

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* *Cestrum pendulinum*, Jacq. ♄ Caraccas.—*C. vespertinum*, L. ♄ W. Indies.—*C. diurnum*, L. ♄ Havannah.—*C. fastigiatum*, Jacq.; B. M.

42, t. 1729. ♄ W. Indies?—*C. tinctorium*, Jacq. ♄ Caraccas.—*C. latifolium*, Lam. ♄ Trinidad.—*C. bracteatum*, Lk. and Otto.; B. M. 57, t. 2974. ♄ Rio Janeiro.—*C. pallidum*, Lam. ♄ Jamaica.—*C. Parqui*, L'Herit; B. M. 42, t. 1770. ♄ Brazil.—*C. alaternoïdes*, Hort. Paris; B. M. 56, t. 2929. ♄ Trinidad.—*C. hirtum*, Swz. ♄ Jamaica.—*C. macrophyllum*, Vent. ♄ W. Indies.—*Vestia lycioides*, Willd. ♄ Chili.

ORDER CCXI.—GENTIANACEÆ, Lindl. Nat. Syst. p. 296.

THE GENTIAN TRIBE.

Herbs, seldom shrubs, by Lindl. referred to 41, or perhaps, only to 37 genera, "extending over almost all parts of the world, from the regions of perpetual snow upon the summits of the mountains of Europe, to the hottest sands of S. America, and India. They however, do not appear in the Flora of Melville Island, but they form part of that of the Straits of Magellan." (*Lindl.*) Spreng. syst. enumerates about 100 species for S. America and Mexico; 50 for Europe; 40 for N. America; 26 for New Holland and Van Diemen's Land; 20 for Siberia; 10 for Tauria, Caucasus, and Altai; 2 for Madagascar; 2 for Japan; 1 for Arabia; and 1 for the Azores. In S. Africa have been found 30 species; and in the E. Indies, according to D. Don. and Wall. Cat., about 68, viz. 10 of *Gentiana;* 2 of *Pneumonanthe;* 5 of *Ericala;* 3 of *Eurythalia;* 2 of *Crawfurdia;* 9 of *Swertia;* 3 of *Agathotes;* 6 of *Ophelia;* 1 of *Halenia;* 1 of *Erythræa;* 8 of *Canscora;* 9 of *Exacum;* 1 of *Slevogtia;* 2 of *Mitreola;* 1 of *Mitrasacme;* and 4-5 of *Villarsia.* Of these by far the greater part inhabit the Himalayas, Khassya Mountains, Neelgheries, and other Mountains of both Peninsulas of India and Ceylon. But few are found in the plains, such as *Erythræa centaurioïdes; Canscora diffusa, decussata, pusilla, sessiliflora; Exacum tetragonum, pedunculatum; Slevogtia verticillata; Villarsia indica, cristata,* &c.

"The intense bitterness of the Gentian is a characteristic of the whole order. It resides both in the stems and roots, and renders them tonic, stomachic, and febrifugal; and it is very remarkable that there are no exceptions to these properties in the whole order, as it is now limited." (*Lindl.*)

AGATHOTES, D. Don. (*G. Don's Mill. dict.* 4, *p.* 177.)

1. *Cherayta*, D. Don. (*G. Don. l. c.*—Swertia Cheyrata, *Buch. MSS.*—S. racemosa, *Wall. Cat.*—Gentiana Cheyrata, *Roxb. fl. ind.* 2, *p.* 71; —*Wall. pl. as. rar.* 3, *t.* 252;—*Röm. and Sch.*) চিরতা *Chirata.* ☉ Mussooree. Nepal. Kemaon. Fl. smallish, bright yellow. Has been

introduced into H. C. G. Fl.? In the garden here it has never succeeded.

ERYTHRÆA, Rich. (*G. Don's Mill. dict.* 4, *p.* 203.)

1. *centaurioides*, (E. Roxburghii, *G. Don. o. c. p.* 206.—Chironia centaurioides, *Roxb. fl. ind.* 1, *p.* 584; *ed. Carey*, 2, *p.* 283.—C. carinata, *Hb. Banks.*) গিমা *Gima.* ⊙ Bengal, (Serampore. Monghir,) Himalayas. Fl. small, Jan. and Feb.; fr. March. The fresh, but especially the dried plant, is considerably bitter. (*Roxb.*)

CANSCORA, Lam. (*G. Don's Mill. dict.* 4, *p.* 198.)

1. *diffusa*, R. Br. (*Prodr. p.* 451, annot.—*G. Don. o. c. p.* 199;—*J. Grah. Cat. B. pl. p.* 123;—*Wall. Cat.*—C. tenella, *Wall. Cat.*—C. foliosa, *D. Don. in G. Don. l. c.*—Pladera virgata, *Roxb. fl. ind.* 1, *p.* 401; *ed. Carey*, 1, *p.* 417;—*Cham. and Schlecht, in Linnæa.* 1, *p.* 198;—*Hook. Bot. misc.* 3, *p.* 89, *t.* 25.—P. muralis, *Herb. Buch.*—Gentiana diffusa, *Vahl.*—Exacum diffusum, *Willd.*—E. tenellum, *Hb. Madras.*—Flemingia virgata, *Roxb. Herb.*) ⊙ Both Peninsulas of India. Bengal, (Serampore.) Himalyas. Fl. small, rose-coloured, R. and C. S.; fr. C. S.

2. *decussata*, Schult. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 123.—Pladera decussata, *Roxb. fl. ind.* 1, *p.* 402; *ed. Carey*, 1, *p.* 418;—*B. M.* 58, *t.* 3066.—Exacum alatum, *Roth.*; not Herb. Heyne.—Flemingia decussata, *Roxb. Herb.*) ডঙ্কাণি *Dunkuni.* ⊙ Both Peninsulas of India. Bengal, (Serampore.) Silhet. Khassya Mountains. Himalayas. Fl. middle-sized, white, R. and C. S.; fr. C. S.

3. *justicioïdes*, Griff. (MSS. 1836.) ⊙ Khassya Mountains. Fl. small, pale rose-coloured or white, C. S.; fr. March.

? 4. *pusilla*, Schultes; (*G. Don. l. c.*—Pladera pusilla, *Roxb. fl. ind.* 1, *p.* 403; *ed. Carey*, 1, *p.* 419.—Hopea dichotoma, *Vahl.*—Exacum sessile, *Willd.*) ⊙ Ceylon. Coromandel. Bengal, (Serampore). Delhi. Fl. small, yellow, R. S.; fr. C. S.

SLEVOGTIA, Reichb.

1. *verticillata*, D. Don. (Adenema hyssopifolium, *G. Don's Mill. dict.* 4, *p.* 201.—Exacum hyssopifolium, *Willd.*—*Spreng.*—Gentiana verticillata, *L. fil.*; *Roxb. fl. ind.* 2, *p.* 71.—Hippion hyssopifolium, *Spreng.*) ছোট কিরাত *Chhoto-Kirata.* ♃ Coromandel. Bengal, (Serampore). Banks of the Jumna. Fl. small, white, R. S.; fr. C. S.

EXACUM, L. (*G. Don's Mill. dict.* 4, *p.* 212.)

1. *tetragonum*, Roxb. (*fl. ind.* 1, *p.* 398; *ed. Carey*, 1, *p.* 413;—*G. Don. l. c.*;—*J. Grah, Cat. B. pl. p.* 123;—*Wall. pl. as. rar.* 3, *t.* 276; not D. Don.) কুচড়ি *Koochuri.* ⊙ Bombay. Salsette. Kandalla. Wurgaum. Bengal. (Serampore). Rajmahl. Silhet. Morung. Himalayas. Fl. large, beautifully blue, with gold-coloured anthers, R. and C. S.; fr. C. S.

2. *pedunculatum*, L. (*G. Don. l. c.* excl. syn. Roxb. and Spreng.—*Wight.*

icon. 2, *t.* 336.—E. sulcatum, *Roxb. fl. ind.* 1, *p.* 400; *ed. Carey*, 1, *p.* 415;—*G. Don. o. c. p.* 213.—Sebæa sulcata, *Spreng.*) ⊙ Bengal, (Serampore.) &c. Fl. bright-blue, C. S.; fr. March.

3. *carinatum*, Roxb. (*fl. ind.* 1, *p.* 399; *ed. Carey*, 1, *p.* 415.) ⊙ Ceylon. Fl. largish, yellow, C. S.; fr. March.

4. *teres*, Wall. (*Roxb. fl. ind.; ed. Carey*, 1, *p.* 414;—*G. Don. o. c. p.* 212.) ⊙ Khassya Mountains. Fl. like those of *No.* 1, Feb. and March; fr. March.

VILLARSIA, Vent. (*G. Don's Mill. dict.* 4, *p.* 168.)

1. *indica*, Vent. (*G. Don. l. c.;—Hook. bot. misc.* 3, *p.* 97, *t.* 30.—Menyanthes indica, *L.;—Roxb. fl. ind.* 1, *p.* 460; *ed. Carey*, 2, *p.* 31;—*J. Grah. Cat. B. pl. p.* 123, excl. syn. B. M.—*Rheed.* 11, *t.* 28;—*Rumph.* 6, *t.* 72, *f.* 3.) বড় পাণ চুলী *Buro-pan-choolee. Indian Buck bean.* ⊙ Peninsula of India. Moluccas. Bengal, (Serampore,) &c. Fl. middle-sized, with a yellow tube, and a white-bearded limb, R. and C. S.; fr. C. S.

2. *cristata*, Spreng. (*syst.* 1, *p.* 582;—*J. Grah. Cat. B. pl. p.* 123.—Menyanthes cristata, *Roxb. Corom.* 2, *t.* 105; *fl. ind.* 1, *p.* 459; *ed. Carey*, 2, *p.* 29;—*G. Don's Mill. dict.* 4, *p.* 168;—*Rheed.* 11, *t.* 29.) ছোট পাণ চুলী *Chhoto-pan-choolee.* ⊙ Peninsula of India. Bengal, (Serampore,) &c. Fl. smallish, white, R. and C. S.; fr. C. S.

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* *Eurythalia Amarella*, Borkh. (Gentiana Amarella, L.; E. B. 4, t. 236.) ⊙ N. Europe.—*E. campestris*, Borkh. (Gentiana campestris, L.; E. B. 4, t. 237.) ⊙ N. Europe.—*Agathotes alata*, D. Don. ⊙ Nepal.—*Ophelia angustifolia*, D. Don. ⊙ Nepal.—*Gentiana umbellata*, Bieb. ⊙ Caucasus.—*Centaurella æstivalis*, Pursh. ⊙ Carolina.—*Ericala capitata*, D. Don. ⊙ Nepal.—*Schultesia Aubletii*, G. Don. ⊙ Guiana. Trinidad, &c.—*Orthostemon erectus*, R. Br. ⊙ Tropical N. Holland.—*Chlora perfoliata*, L.; E. B. 1, t. 60. ⊙ Europe.—*C. imperfoliata*, L. ⊙ Italy.—*Canscora sessiliflora*, Schult. ⊙ Coromandel.—*C. Schultesii*, Wall. ⊙ Prome.—*C. perfoliata*, Lam. ⊙ Salsette, &c.—*Voyria rosea*, Aubl. ♃. Guiana.—*V. cærulea*, Aubl. ♃. Guiana.—*Coutoubea spicata*, Aubl. ⊙ Guiana.—*Schubleria stricta*, Mart. ⊙ Humid places, Brazil.—*Erythræa Centaurium*, Pers. (Chironia Centaurium, With.; E. B. 6, t. 417.) ⊙ Europe.—*E. maritima*, Pers. ⊙ S. Europe, by the sea-side.—*Lisianthus grandiflorus*, Aubl. ⊙ Guiana.—*Eustoma exaltatum*, Salisb. ⊙ St. Domingo.—*Sebæa cordata*, R. Br. ⊙ C. G. H.—*Exacum bicolor*, Roxb. ⊙ Salsette. Kandalla. Cuttack.—*E. zeylanicum*, Roxb. ⊙ Ceylon. Neelgherries.—*E. grandiflorum*, Wall. ⊙ Courtallum.—*E. pteranthum*, Wall. ⊙ Tavoy.—*E. Hamiltonii*, G. Don. (E. tetragonum, D. Don.; not L.) ⊙ Nepal.—*Microcala filiformc*, Lk. (Exacum filiforme, Sm.; E. B. 4, t. 235.) ⊙ Europe.

ORDER CCXII.—SPIGELIACEÆ, Mart.—Lindl. Nat. Syst. p. 298.

THE WORMSEED TRIBE.

Herbs or undershrubs, by Lindl. referred to 2 genera. Of these Spreng. syst. enumerates 11 species, all natives of S. America, Mexico, and the southern part of N. America. "The root of Spigelia marilandica is used in N. America as a vermifuge." (*Lindl.*)

* *Spigelia fruticulosa*, Lam. ♄ Cayenne.—*S. marilandica*, L.; B. M. 3, t. 80. 2. Carolina. Georgia. Maryland.

ORDER CCXIII.—APOCYNACEÆ, Lindl. Nat. Syst. p. 299.

Trees or shrubs, seldom herbs, by Lindl. (excluding Cryptolepis, and adding Epichysianthus, Pentalinon, Echaltium, Calpicarpum, and Tanghinia) referred to 73 genera. Of these, Spreng. syst. enumerates for S. America, Mexico, and the W. Indies, about 126 species; for New Holland and the South Sea Islands 24; for N. America 8; for Madagascar 6; for the Mascarenhas Islands 6; for Europe 5; for Mozambique 4; for Guinea 3; for Arabia 3; for China 2; for Owaree 1; and for the Canaries 1. In S. Africa have been discovered 12 species; (Harvey) and in the E. Indies about 153, viz. 23 of *Echites*; 5 of *Epichysianthus*; 4 of *Ichnocarpus*; 1 of *Beaumontia*; 2 of *Holarrhena*; 3 of *Vallaris*; 7 of *Parsonsia*; 5 of *Apocynum?*; 1 of *Nerium*; 1 of *Echaltium*; 4 of *Strophanthus*; 8 of *Wrightia*; 11 of *Alstonia*; 2 of *Vinca*; 14 of *Tabernæmontana*; 1 of *Plumiera*; 1 of *Urceola*; 1 of *Rejona*; 8 of *Carissa*; 2 of *Melodinus*; 10 of *Strychnos*; 3 of *Cerbera*; 1 of *Calpicarpum*; 1 of *Rauwolfia*; 7 of *Huntera*; 4 of *Alyxia*; 1 of *Ophioxylon*; 5 of *Willughbeia*; 1 of *Leuconotis*; 1 of *Cercocoma*; 1 of *Orchipeda*; 1 of *Copsia*; 1 of *Heylygia*; 2 of *Chilocarpus*; and 1 of *Kitabalia*. The greater part of these prevail in Java, Ceylon, both Peninsulas of India, Bengal, and the Khassya Mountains, whence they extend to the forests bounding Nepal. The order abounds in a milky juice, distinguished, like that of Asclepiadaceæ, by its acrid, purgative, febrifugal, and perhaps, more suspicious properties. (*Lindl.*)

A. ECHITEÆ, Bartl.

ECHITES, L. (*R. Br. in. Wern. soc.* 1, *p.* 59;—*G. Don's Mill. dict.* 4, *p.* 72.)

1. *apoxys*, (E. acuminata, *Roxb. fl. ind.* 2, *p.* 15. not Ruiz. and Pav. —Aganosma acuminata, *G. Don. o. c. p.* 77;—*Wight. icon.* 2, *t.* 424.) L. ♄ ◡ Silhet. Fl. 10 lines, pale greenish white, fragrant, April and May; fr. Jan. and Feb.

2. *cymosa*, Roxb. (*fl. ind.* 2, *p.* 16;—*Wight. icon.* 2, *t.* 395.—Aganosma cymosa, *G. Don. l. c.*) ♄ Khassya Mountains. Fl. small, dull white, fragrant. In H. C. G.
3. *lisianthiflora*, Bojer. (*Hort. Maurit. p.* 211.) ♄ Madagascar.
4. *caryophyllata*, Roxb. (*H. B.* [1814,] *p.* 20; *fl. ind.* 2, *p.* 11;—*B. M.* 44, *t.* 1919, not Bl.—Aganosma Roxburghii, *G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 113, excl. Rheed. 7, t. 55;—*Wight. icon.* 2, *t.* 440;—*Rheed.* 9, *t.* 14.) L. ♄ ◡ Mountains of the Peninsula of India. Bengal. Monghir. গন্ধ মালতী *Gundho-malutee.* Fl. 15 lines, pure-white, delightfully fragrant, R. S.; fr. 0.
5. *paniculata*, Roxb. (*fl. ind.* 2, *p.* 17;—*G. Don. o. c. p.* 75;—*Wight. icon.* 2, *t.* 396; not Poir, which, according to G. Don. o. c. p. 74, is perhaps no Echites at all.—E. manubriata, *Wall. Cat.*) L. ♄ ◡ Silhet. Fl. small, cream-coloured, fragrant, March and April; fr. Feb. and March.

Epichysianthus, (Chonemorpha, *G. Don's Mill. dict.* 4, *p.* 76, not Conomorpha, Alph. DC., the pronunciation of which two words can scarcely be distinguished.)

1. *macrophyllus*, (Chonemorpha macrophylla, *G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 113;—*Wight. icon.* 2, *t.* 432.—Echites macrophylla, *Roxb. fl. ind.* 2, *p.* 13; not H. B. and Kth.) L. ♄ ◡ Silhet. Fl. very large, white, May and June; fr. March and April.

Pentalinon, (Corolla infundibuliformis; tubo basin versus constricto; laciniis profundis, inæquilateris. Antheræ medio stigmatis cohærentes; lobis postice epolliniferis; connectivo in processum loriformem, e basi angustissima subdilatatum longe producto. Glandulæ hypogynæ 5. Stylus unicus, clavatus, in annulum infra stigma dilatatus, apice bi-apiculatus. Ovaria 2, Folliculi—Genus Epichysiantho propinquum, processubus autem connectivi discrepans.

1. *suberectum*, (Echites suberecta, *Jacq. amer.* 32, *t.* 26;—*B. M.* 27, *t.* 1064.—Hæmadictyon suberectum, *G. Don's Mill. dict.* 4, *p.* 83.—Nerium sarmentosum, &c. *Browne jam.* 180.—Apocynum erectum, fruticosum, &c. *Sloane jam.* 89, *hist.* 1, *p.* 206, *t.* 130, *f.* 2.) ♄ ⌒ Savannas of Jamaica and St. Domingo. Fl. $2\frac{1}{2}$ inches, bright yellow, inodorous, R. and C. S. especially; fr. 0.

Ichnocarpus, R. Br. (*Mem. Wern. soc.* 1, *p.* 62;—*G. Don's Mill. dict.* 4, *p.* 78.)

1. *frutescens*, R. Br. (*Hort. Kew. ed.* 2, *vol.* 2, *p.* 69;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 113;—*Wight. icon.* 2, *t.* 430.—Echites frutescens, *Roxb. fl. ind.* 2, *p.* 12;—*Burm. zeyl. t.* 12, *f.* 1.—Apocynum frutescens, *L.*) শ্যামা লতা *Shyama-luta.* ♄ ⌒ Both Peninsulas of India. Bengal, (Serampore.) Silhet. Sirmore. Kemaon. Fl. 5 lines, greenish-white, sweet-scented, R. S.; fr. C. S.
2. *fragrans*, Wall. (*Cat.*;—*G. Don. l. c.*) ♄ ⌒ Nepal. Kemaon. In H. C. G. Fl.?

BEAUMONTIA, Wall. (*G. Don's Mill. dict.* 4, *p* 77.)

1. *grandiflora*, Wall. (*Tent. fl. nep. p.* 14, *t.* 7;—*B. Reg.* 11, *t.* 911;—*G. Don. l. c.*;—*B. M.* 60, *t.* 3213;—*J. Grah. Cat. B. pl. p.* 113.—Echites grandiflora, *Roxb. fl. ind.* 2, *p.* 14, not Meyer, nor Roth.) L. ♄ ◡ Chittagong. Khassya Mountains. Nepal. Fl. 4-5 inches, white, with the tube and lower part of the faux greenish-yellowish, sweet-scented, Feb. and March; fr. C. S.

HOLARRHENA, R. Br. (*Mem. Wern. soc.* 1, *p.* 62;—*G. Don's Mill. dict.* 4, *p.* 78.)

1. *antidysenterica*, Wall. (*Cat.*—Echites antidysenterica, *Roxb. H. B. p.* 20.—Chonemorpha antidysenterica, *G. Don. o. c. p.* 76;—*Wight icon.* 2, *t.* 439.) 5 Chittagong. Silhet. Nepal. In H. C. G. fl. Feb. to May; fr. Oct. and Nov. (*Roxb.*) Has been cultivated in the garden here for five years, without fl.
2. *pubescens*, Wall. 5 Burma. 1827.

VALLARIS, Burm. (*R. Br. Mem. Wern. soc.* 1, *p.* 63;—*G. Don's Mill. dict.* 4, *p.* 78.)

1. *pergulanus*, Burm. (*ind. p.* 51;—*G. Don. o. c. p.* 79;—*Wight icon.* 2, *t.* 429.—Pergularia glabra, *L.*;—*Willd.*—*Houtt. Linn. pfl. syst.* 3, *p.* 335, *t.* 20, *f.* 1.—Echites hircosa, *Roxb. fl. ind.* 2, *p.* 18.—Flos pergulanus, *Rumph.* 5, *t.* 21, *f.* 2.—Emericia Pergularia, *Röm. and Sch. syst.* 4, *p.* 40.) ♄ ⌒ Moluccas. Java. Bengal. Fl. middle-sized, of a goatish smell, May and June; fr. 0.
2. *dichotomus*, Wall. (*Cat.*;—*G. Don. l. c.*;—*Wight icon.* 2, *t.* 438,—Echites dichotoma, *Roxb. fl. ind.* 2, *p.* 19;—*J. Grah. Cat. B. pl. p.* 113, *No.* 857, excl. syn. Don;—not H. B. and Kth. nor Roth.) হাপরমালী *Hapurmalee.* L. ♄ ⌒ Taong-Dong. Banks of the Irawaddi. Bengal, (Serampore.) Silhet. Hindoosthan. Nepal. Fl. middle-sized, white, pleasantly fragrant, C. and H. S; fr. C. S.

PARSONSIA, R. Br. (*Mem. Wern. soc.* 1, *p.* 64; *pr. p.* 465;—*G. Don's Mill. dict.* 4, *p.* 79.)

1. *spiralis*, Wall. (*Cat.*;—*G. Don. o. c. p.* 80.) ♄ ⌒ Khassya Mountains. Fl. middle-sized, green, inodorous, R. S.; fr. 0.

NERIUM, L. (*R. Br. Mem. Wern. soc.* 1, *p.* 71;—*G. Don's Mill. dict.* 4, *p.* 84.)

1. *odorum*, Ait. (*Roxb. fl. ind.* 2, *p.* 2;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 114.—N. odoratum, *Lam.*—N. indicum, *Mill. dict. No.* 2.—N. Oleander, *Lour.*; not L.) *Sweet-scented Oleander*, L. ♄. China. Cochin-China. Common in gardens. Fl. $1\frac{1}{2}$-2 inches, sweet-scented, nearly throughout the year; fr. 0.
   - *α. rubro-simplex.* রক্ত করবী *Rukto-Kurubee.* Fl. single, deep-red.
   - *β. albo-simplex.* (*Rheed.* 9, *t.* 2.) শ্বেত করবী *Shwet-Kurubee.* Fl. single, white.
   - *γ. roseolo-simplex.* (*B. M.* 46, *t.* 2032.) Fl. single, white, tinged with rose.

δ. *roseo-plenum.* (*Rheed.* 9, *t.* 1;—*B. M.* 43, *t.* 1799;—*B. Reg.* 1, *t.* 74.) লাল পদ্ম করবী *Lal-pudmo-Kurubee.* Fl. double, beautiful rose-coloured.

ε. *albo-plenum.* শ্বেত পদ্ম করবী *Shwet-pudmo-Kurubee.* Fl. double, white, with a yellow throat.

ECHALTIUM, Wight. (*icon.* 2, *t.* 472.) Khassya name: *Echalut.*

1. *piscidium,* Wight. (*icon. l. c.*—Nerium piscidium, *Roxb. fl. ind.* 2, *p.* 7.—Wrightia? piscidia, *G. Don's Mill. dict.* 4, *p.* 86.) L. ♄ ◡ Khassya Mountains. Fl. large, pale yellow, May and June; fr. Jan. and Feb. The bark contains a great deal of fibrous matter, used by the natives as a substitute for hemp. In steeping some of the young shoots in a fish-pond, in order to hasten the removal of the bark, and cleaning the fibres, many, if not all, the fishes were killed. Hence the specific name. (*Roxb.*)

STROPHANTHUS, DC. (*R. Br. Mem. Wern. soc.* 1, *p.* 72;—*G. Don's Mill. dict.* 4, *p.* 84.)

1. *dichotomus,* DC. (*B. Reg.* 6, *t.* 469;—*G. Don. o. c. p.* 85, excl. syn. Echites dichotoma, Roxb. H. B. p. 20, which is Vallaris dichotomus, Wall.;—*J. Grah. Cat. B. pl. p.* 114.—S. terminalis, *Bl.*—Nerium caudatum, *Roxb. fl. ind.* 2, *p.* 9.—Echites caudata, *L.*;—*Burm. ind. t.* 26.—Nerium scandens, *Lour.*) ♄ ◡ Coromandel. Khassya Mountains, &c. Fl. above 2 inches, greenish-white, the throat crimsoned with streaks and dots, H. S.; fr. 0,

WRIGHTIA, R. Br. (*Mem. Wern. soc.* 1, *p.* 73;—*G. Don's Mill. dict.* 4, *p.* 85.)

1. *antidysenterica,* R. Br. (*o. c. p.* 74;—*G. Don. l. c.*; excl. syn. Burm. zeyl. t. 77;—*J. Grah. Cat. B. pl. p.* 114.—Nerium antidysentericum, *L.*;—*Roxb. H. B. p.* 19; excl. annot. 28, which is Holarrhena antidysenterica, Wall.—*Lour.*;—*Rheed.* 1, *t.* 47.) 5 The Ghauts and hilly parts of the Concan. Fl. 2 inches, pure white, sweet-scented, March and April; fr. Jan. and Feb. The bark of this tree is called *Cortex Conessi, s. profluvii, s. Codaga-pala,* and is by the natives considered a specific in dysenteries and bowel complaints.

2. *tinctoria,* B. Br. (*l. c.*;—*G. Don. o. c. p.* 86;—*J. Grah. Cat. B. pl. p.* 114;—*Wight icon.* 2, *t.* 444.—Nerium tinctorium, *Roxb. fl. ind.* 2, *p.* 4.—*Burm. zeyl. t.* 77.) 5 Ceylon. Coromandel, &c. Fl. above 2 inches, pure white, fragrant, March, April and May; fr. Jan. and Feb. *Wood* remarkably white, close-grained, very beautiful in appearance, coming near ivory, used for planking, in much repute among turners and escritoire makers. A kind of Indigo exudes from the bruised leaves. (*Lour. Roxb.*)

3. *tomentosa,* Röm. and Sch. (*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 114;—*Wight. icon.* 2, *t.* 443.—Nerium tomentosum, *Roxb. fl. ind.* 2, *p.* 6;—*Rheed.* 9, *t.* 3, 4.) 5 Circars. Concans. Segaen. Martaban. Tavoy. Fl. largish, yellowish-white, with an orange-coloured throat,

faintly smelling of rhubarb, April, May and June; fr. 0. "With the yellow juice, flowing from the wounded plant, diluted with water, bits of cotton cloth were dyed a pretty good yellow, which still continues bright as at first, now two years." (*Roxb.*)

4. *mollissima*, Wall. (*pl. as. rar.* 2, *t.* 146;—*G. Don. l. c.*) ♄ Deyra-Dhoon. Kemaon. Fl. largish, yellowish, tinged with reddish, April and May; fr. 0.

5. *coccinea*, Sims. (*B. M.* 53, *t.* 2696;—*B. Cab. t.* 894;—*G. Don. l. c.*; —*J. Grah. Cat. B. pl. p.* 114;—*Wight. icon.* 2, *t.* 442.—Nerium coccineum, *Roxb. fl. ind.* 2, *p.* 2.) L. ♄ Khassya Mountains. Fl. 17 lines long, expanded $2\frac{1}{4}$ inch in diameter, internally deep orange-red, externally green, richly pine-apple-scented, the faux crimson, April; fr. 0. *Wood* white, remarkably light but firm, and much used by turners to make palkees, &c. (*Roxb.*)

ALSTONIA, R. Br. (*Mem. Wern. soc.* 1, *p.* 75;—*G. Don's Mill. dict.* 4, *p.* 86.)

1. *scholaris*, R. Br. (*o. c. p.* 76;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 115, excl. syn. Labill;—*Wight. icon.* 2, *t.* 422.—Echites scholaris, *L.*;—*Roxb. H. B. p.* 20;—*Rheed.* 1, *p.* 81, *t.* 45;—*Rumph.* 2, *t.* 82.) ছাতিন *Chhatin*. L. ♄ Moluccas. Coromandel. Hilly parts of the Concan. Vale of Saweetre, between Poladpore and the Ghauts. Bengal, (Serampore,) &c. northwards as far as Mirzapore. Fl. small, greenish-white, Feb.; fr. C. S. *Bark* powerfully tonic, a rustic medicine in bowel complaints. (*Nimmo.*)

2. *macrophylla*, Wall. (*Cat.*;—*G. Don. o. c. p.* 87.) ♄ Penang. Fl. large, white, H. S.; fr. C. S.

3. *neriifolia*, D. Don. (*pr. fl. nep. p.* 131;—*G. Don. l. c.*) ♄ Nepal. Fl. large, pure white, with a pale greenish throat, and fr. nearly throughout the year.

4. *venenata*, R. Br. (*o. c. p.* 77;—*G. Don. l. c.*;—*Wight icon.* 2, *t.* 436.—Echites venenata, *Roxb. H. B. p.* 20.) ♄ Peninsula of India. Fl. large, pure white, and fr. nearly throughout the year.

5. *spectabilis*, R. Br. (*o. c. p.* 76.—*Bl. bijdr. p.* 1038.) ♄ Penang. Rumph's fig. under A. scholaris belongs rather to this.

VINCA, L. (*G. Don's Mill. dict.* 4, *p.* 95.)

1. *major*, L. (*G. Don. o. c.*;—*E. B.* 8, *t.* 514.—V. media, *Delile.*—Pervinca major, *Scop.*) *Great Periwinkle.* ♃. England. S. Europe, &c. Fl. large, of a fine purplish blue colour, C. S.; fr. 0.

2. *herbacea*, Waldst. and Kit. (*G. Don. l. c.*;—*B. M.* 45, *t.* 2002.) ♃. Hungary. Fl. large, purplish-blue. Lately introduced.

3. *rosea*, L. (*Gärtn. fr.* 2, *p.* 172, *t.* 117, *f.* 5;—*B. M.* 7, *t.* 248;—*Lour.*; *Roxb. fl. ind.* 2, *p.* 1.—Catharanthus roseus, *G. Don's Mill. dict.* 4, *p.* 95;—*J. Grah. Cat. B. pl. p.* 115.) গলফিরিঙ্গী *Gulphiringee.* ♄ China. Cochin China. Common in gardens. Fl. largish, rose-coloured, and fr. nearly throughout the year.

β. *albiflora*. Fl. white.

TABERNÆMONTANA, Plum. (*G. Don's Mill. dict.* 4, *p.* 87;—*R. Br. pr. p.* 467.)

1. *coronaria*, R. Br. (*Ait. Hort. Kew. ed.* 2, *vol.* 2, *p.* 72;—*G. Don. o. c. p.* 90;—*Roxb. H. B. p.* 20; *fl. ind.* 2, *p.* 23;—*B. Reg.* 13, *t.* 1064;—*B. Cab. t.* 406;—*J. Grah Cat. B. pl. p.* 115;—*Wight. icon.* 2, *t.* 477.—T. divaricata, *R. Br.*;—*Röm. and Sch.*—Nerium coronarium, *Ait.*;—*Jacq. icon. rar.* 1, *t.* 52;—*Roxb. H. B. p.* 19.—N. divaricatum, *L.*; *fl. zeyl.*;—*Rheed.* 2, *t.* 55.) ফিরকি টগর *Phirki-tugur.* ♄ Moluccas. Manilla. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Silhet. Nepal. Fl. 2 inches, pure white, fragrant, the tube bright yellow within, H. and R. S.; fr. C. S.

   β. *plena*, Roxb. (Nerium coronarium, *B. M.* 44, *t.* 1865.—*Rheed.* 2, *t.* 54;—*Rumph.* 4, *t.* 39.) বড় টগর *Bura-tugur.* Fl. double, very fragrant during the night. More common in gardens than *a*.

2. *recurva*, Roxb. (*fl. ind.* 2, *p.* 26;—*G. Don. o. c. p.* 91;—*Wight. icon.* 2, *t.* 476.—T. gratissima, *Lindl.*; *B. Reg.* 13, *t.* 1084.) ♄ Chittagong. Fl. large, yellowish-white, March and April; fr. 0.

3. *crispa*, Roxb. (*fl. ind.* 2, *p.* 24;—*G. Don. l. c.*;—*Wight. icon.* 2, *t.* 470.—T. alternifolia, *L.* which by a misprint, is put down in Roxb. l. c. as a species instead of a syn.;—*J. Grah. Cat. B. p. pl. p.* 115, excl. syn. R. Br.—*Rheed.* 1, *p.* 83, *t.* 46. (bad.) ♄ Coromandel. Fl. 15 lines, pure white, with a greenish tube, fragrant, April, May and June; fr. 0.

4. *dichotoma*, Roxb. (*fl. ind.* 2, *p.* 21;—*G. Don. l. c.*;—*Wight. icon.* 2, *t.* 433;—*J. Grah. Cat. B. pl. p.* 115?) ♄ Ceylon. Malabar. Fl. nearly 2 inches, yellowish-white, slightly fragrant, nearly throughout the year; fr. C. S.; but seldom. Very much like T. laurifolia, L.; B. Reg. 9, t. 716.

5. *micrantha*, (T. parviflora, *Roxb. fl. ind.* 2, *p.* 25; not Poir; nor Nouv. ann. mus. 3, p. 379.) ♄ Sumatra. Fl. small, white, R. S.; fr. 0. (*Roxb.*)

6. *rugosa*, Wall. ♄ Ava.

URCEOLA, Roxb. (*Asiat. res.* 5, *p.* 169, not Vandelli.)

1. *elastica*, Roxb. (*o. c.* with a plate at p. 167;—*Wight. icon.* 2, *t.* 473;—*G. Don's Mill. dict* 4, *p.* 92, where it is strangely enough placed as a syn. of Vahea gummifera, Poir.—Tabernæmontana elastica, *Spreng. syst.* 1, *p.* 639.) ♄ ◡ Sumatra. Penang. Fl. minute, dull greenish. Has been introduced into H. C. G. Fl.? The juice issuing from this shrub is one of those which constitutes *Caoutchouc.*

PLUMIERA, Tournef. (*G. Don's Mill. dict.* 4, *p.* 93.)

1. *rubra*, Jacq. (*Amer. p.* 35. *pict. p.* 23;—*L. hort. cliff. p.* 76; *spec.* 306;—*G. Don. l. c.*;—*B. M.* 8, *t.* 279.) 5 Jamaica. Surinam. S. America. Fl. large, red, very sweet-scented, so much so, that the women of S. America put them among linen to scent it, as we do lavender. Introduced in 1841.

2. *alba*, Jacq. (*Amer.* 36, *t.* 174, *f.* 12; *ed. pict. t.* 38;—*L. sp.*;—*G. Don. l. c.*;—*Roxb. H. B. p.* 20.) ♄ West Indies. S. America. Fl. large, white, with a yellowish tube and throat, very fragrant, or, as L. says, "ambrosiacal, exciting cephalalgia," May, June and July; fr. 0.
3. *acuminata*, Ait. (*G. Don. o. c. p.* 94; *B. Reg.* 2, *t.* 114;—*Roxb. fl. ind.* 2, *p.* 20;—*J. Grah. Cat. B. pl. p.* 115;—*Wight. icon.* 2, *t.* 471. —P. acutifolia, *Poir.*—P. obtusa, *Lour.*, not L.—*Rumph.* 4, *t.* 38.) গুলা চীন *Goola-cheen.* (Hind.) গোবরিয়া চাঁপা *Goburiya-champa.* ♄ Cultivated in China, Cochin-China, India, the Moluccas, &c. where it is thoroughly domesticated. It is, however, no doubt, with the other Plumieras a native of S. America or the W. Indies. Fl. large, reddish-yellowish-white, fragrant, especially during the night. H. and R. S.; fr. 0, or very rare.

ALLAMANDA, L. (*Mill. dict. ed. G. Don.* 4, *p.* 102.)

1. *cathartica*, L. (*Mant.* 214;—*Gärtn. fr.* 1, *p.* 293, *t.* 61, *f.* 4;—*B. M.* 10, *t.* 338;—*Roxb. H. B. p.* 19.—A. oenotheræfolia, *Pohl.*;—*G. Don. o. c. p.* 103.—A. Schottii, *Pohl.*;—*G. Don. l. c.*—A. angustifolia, *Pohl.*;—*G. Don. l. c.*—A. Linnæi, *Pohl.*;—*G. Don. l. c.*—A. Aubletii, *Pohl.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 116.—A. verticillata, *Desf.*;—*Pohl.*;—*G. Don. l. c.*) ♄ Guiana. Brazil. Surinam. W. Indies. Fl. very large, bright yellow, fragrant, and fr. throughout the year.

This shrub was introduced from Guiana into India in 1803, and is now very common in gardens. '*Stems* erect, larger *branches* hollow in the middle; smaller ones and young shoots filled with thick viscid milk, glabrous, in a dried state fistulous. *Leaves* mostly 4, sometimes 6, 5 or 3 in a vharl, or only 2, opposite, sub-opposite or alternate; they are oblong, 2-4-5 inches long, ½-1-2 wide across the middle, acuminate, acute, towards base cuneately attenuated, now and then oblong-obovate, acutish, at margins revolutely undulated, above dark green and glabrous, underneath pale green and when badly dried brown-spotted, roughishly hairy along the midrib and primary veins, or only very little so along the first, or over the whole surface.' Of this characteristic there is more than enough to form six *such* species as Pohl's, which being made exclusively from unimportant leaf-discrepancies, are good for nought. His one climbing species has not been discovered here, but were a specimen of Allamanda placed close to a tree, it might, perhaps, like a Clerodendron phlomoïdes in our garden, take a fancy to ascend a pretty large Coccoloba uvifera.

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* *Echites umbellata*, Jacq. ⌒ Jamaica.—*E. biflora*, Jacq. ⌒ W. Indies. —*E. domingensis*, Swz. ♄ ⌒ St. Domingo. Jamaica.—*E. trifida*, Jacq. ♄ ⌒ Cumana.—*E. rhynchosperma*, Wall. pl. as rar. 1, t. 49. ♄ ⌒ Martaban.—*E. Blumii*, (E. caryophyllata, Bl. not Roxb.—Rheed. 7, t. 55.) ♄ ⌣ Java.—*E. marginata*, Roxb. (Aganosma marginata, G. Don;—Wight. icon. 2, t. 425.) ♄ ⌣ Silhet.—*E. parviflora*,

Roxb.; Wight. icon. 2, t. 423. ♄ ⌒ N. Circars.—*Hæmadictyon venosum*, Lindl. (Echites nutans, B. M. 51, t. 2473.) ♄ ⌒ St. Vincent.—*Isonema Smeathmanni*, R. Br. ♄ Tropical Africa, on the W. Coast.—*Parsonsia corymbosa*, R. Br. ♄ ⌒ St. Domingo, in woods.—*P. floribunda*, R. Br. ♄ ⌒ Jamaica.—*P. spicata*, R. Br. ♄ ⌒ Carthagena.—*P. velutina*, R. Br. ♄ ⌒ Tropical N. Holland.—*P. mollis*, R. Br. ♄ ⌒ Tropical N. Holland.—*P. lanceolata*, R. Br. ♄ ⌒ Tropical N. Holland.—*Apocynum androsæmifolium*, L.;—B. M. 8, t. 280. ♃. Carolina.—*Thenardia floribunda*, H. B. and Kth. ♄ ⌒ City of Mexico.—*Prestonia tomentosa*, R. Br. ♄ Rio Janeiro.—*Balfouria saligna*, R. Br. ♄ Tropical N. Holland.—*Nerium Oleander*, L. ♄ S. Europe.—*Wrightia zeylanica*, R. Br. Burm. zeyl. t. 12, f. 2. ♄ Ceylon.—*Alstonia spectabilis*, R. Br. ♄ Java.—*A. spathulata*, Bl. ♄ Java.—*A. costata*, R. Br. ♄ Penang.—*Vinca minor*, L.;—E. B. 13, t. 1917. ♃ England. S. Europe.—*Tabernæmontana orientalis*, R. Br. ♄ Tropical N. Holland.—*T. pubescens*, R. Br. ♄ Tropical N. Holland.—*T. ebracteata*, R. Br. ♄ Tropical N. Holland.—*T. citrifolia*, L. ♄ W. Indies.—*T. odorata*, Vahl. ♄ Guiana.—*T. grandiflora*, Jacq. ♄ Carthagena.—*T. amygdalifolia*, Jacq.; B. Reg. 4, t. 338. ♄ Carthagena.—*T. persicariæfolia*, Jacq. ♄ Mauritius.—*T. mauritiana*, Poir. ♄ Mauritius.—*T. corymbosa*, Roxb. ♄ Penang.—*T. laurifolia*, L.; B. Reg. 9, t. 716.—*T. densiflora*, Wall.; B. Reg. 15, t. 1259. ♄—*Vahea gummifera*, Poir. ♄ Madagascar.—*Cameraria latifolia*, Jacq. ♄ Jamaica.—*Plumiera Kerii*, G. Don. (P. tricolor, Ker.; B. Reg. 6, t. 510. not Ruiz. and Pav.) ♄ Mexico.—*P. pudica*, Jacq. ♄ Curaçao.—*P. Lambertiana*, Lindl.; B. Reg. 16, t. 1378. ♄ Mexico.—*P. tuberculata*, Lodd. B. Cab. t. 681. ♄ St. Domingo.—*Aspidosperma bicolor*, Mart. ♄ Brazil.

B. Carisseæ, Bartl.

Carissa, L. (*R. Br. pr. p.* 468;—*G. Don's Mill. dict.* 4, *p.* 104.)

1. *Carandas*, L. (*Mant. p.* 52;—*G. Don. l. c.*;—*Lam. ill. t.* 118, *f.* 1.—*Ann. mus.* 8, *t.* 32, *f.* 2.—*Roxb. Corom.* 1, *t.* 77; *fl. ind.* 1, *p.* 687; *ed. Carey*, 2, *p.* 523;—*J. Grah. Cat. B. pl. p.* 116;—*Wight. icon.* 2, *t.* 426.—Capparis Carandas, *Gmel.*—Echites spinosa, *Burm. ind. p.* 69.—Carandas, *Rumph. auct. t.* 25.) করমচা *Kurumcha.* L. ♄ Moluccas. Both Peninsulas of India. Bengal, (Serampore.) Hindoosthan. Lower Kemaon. Fl. middle-sized, pure-white, inodorous, Feb. March and April; fr. July and August. Makes, on account of its strong sharp thorns, exceedingly strong fences. *Fruit* employed to make tarts, and preserves of various kinds, also pickles, and by most people reckoned superior for these uses, to every other fruit in the country, not even the mango excepted. (*Roxb.*)
2. *diffusa*, Roxb. (*fl. ind.* 1, *p.* 689; *ed. Carey*, 2, *p.* 524;—*G. Don. l. c.*;—*Wight. icon.* 2, *t.* 427.) ♄ Ganjam district. Soonderbuns. Fl. 9 lines, pure white, inodorous. H. and R. S.; fr. 0.

3. *villosa*, Roxb. (*H. B.* [1814,] *p.* 19; *fl. ind.* 1, *p.* 690; *ed. Carey*, 2, *p.* 525;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 116;—*Wight. icon.* 2, *t.* 437.—C. hirsuta, *Heyne*; *Roth. nov. sp. p.* 128.) ♄ Hills eastward of Belgaum. Kyouk Talong, Irawaddi. Fl. small, white, March, April and May; fr. R. S.

4. *ovata*, R. Br. ♄ Tropical N. Holland.

ARDUINA, L.

1. *bispinosa*, L. (*Mant.*—*B. Cab.* 4, *t.* 387,) S. Africa.

MELODINUS, Forst. (*G. Don's Mill. dict.* 4, *p.* 101.)

1. *monogynus*, Roxb. (*fl. ind.* 2, *p.* 56;—*G. Don. l. c.*;—*B. Reg.* 10, *t.* 834;—*B. M.* 52, *t.* 2527;—*Wight. icon.* 2, *t.* 394.) L. ♄ ◡ Silhet. Fl. largish, white, fragrant, March, and April; fr. Oct. and Nov. Pulp of the *berries* sweetly agreeable, eaten by the natives. (*Roxb.*)

STRYCHNOS, L. (*R. Br. pr. p.* 469;—*G. Don's Mill. dict.* 4, *p.* 64.)

1. *Nux vomica*, L. (*Gärtn. fr.* 2, *p.* 476, *t.* 179, *f.* 7;—*G. Don. o. c. p.* 65;—*Roxb. Corom.* 1, *t.* 4; *fl. ind.* 1, *p.* 575; *ed. Carey*, 2, *p.* 261; —*J. Grah. Cat. B. pl. p.* 112;—*Rheed.* 1, *p.* 37.) কুচিলা *Koochila.* ♄ Martaban. Coromandel. Hilly parts of the Concan. Fl. small, greenish-white, Feb.; fr. 0. *Wood* hard, durable, used for many purposes by the natives. It is exceedingly bitter, particularly that of the root, which is used to cure intermitting fevers, and the bites of venomous snakes. *Seeds* employed in the distillation of country spirits to render them more intoxicating. The pulp of the *fruit* seems perfectly innocent, as it is greedily eaten by many sorts of birds. (*Roxb.*) *Strychnine*, an alcoholic extract of the seeds, has been found a powerful remedy in palsies.

2. *potatorum*, L. (*G. Don. l. c.*;—*Roxb. Corom.* 1, *t.* 5; *fl. ind.* 1, *p.* 576; *ed. Carey*, 2, *p.* 263;—*J. Grah. Cat. B. pl. p.* 112.) নির্ম্মলী *Nirmmulee.*—*Clearing Nut.* ♄ Coromandel. Hilly parts of the Concans. Adjunta Jungles. Banks of the Kalinadi River, South Mahratta Country. Hills about Parr. The Ghauts generally. Prome. Fl. small, greenish-yellow, fragrant, April; fr. 0. (*Roxb.*) In the garden here it has been more than twelve years without fl. The ripe *seeds* are dried and sold in every bazar to clear muddy water. One of the seeds is well rubbed for a minute or two round the inside of the vessel containing the water, generally an unglazed earthen one. In a very short time the impurities fall to the bottom, leaving the water clear, and perfectly wholesome. (*Roxb.*)

3. *spinosa*, Lam. (*Ill. No.* 2449;—*Poir. dict.* 8, *p.* 697;—*G. Don. l. c.*) ♄ Madagascar. Fl. small, greenish-whitish, H. S.; fr. 0.

4. *colubrina*, L. (*G. Don. l. c.*;—*Roxb. fl. ind.* 1, *p.* 577; *ed. Carey*, 2, *p.* 264;—*Wight. icon.* 2, *t.* 434.—*J. Grah. Cat. B. pl. p.* 112. excl. Rheed. 7, t. 5. and Rumph. 2, t. 38.—*Rheed.* 8, *t.* 24.) কুচিলা লতা *Koochila-luta.* L. ♄ ◡ S. Concan. Coromandel. Khassya Mountains.

Fl. small, greenish-yellow. In H. C. G. fl. April; fr. Sept. Oct. and Nov. (*Roxb.*)

5. *axillaris*, Colebr. ♄ ◡ Khassya Hills.

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* *Carissa ovata*, R. Br. ♄ Tropical N. Holland.—*C. lanceolata*, R. Br. ♄ Tropical N. Holland.—*Ambellania acida*, Aubl. ♄ Guiana.—*Hancornia speciosa*, Gomez. ♄ Brazil.—*Landolphia owariensis*, Beauv. ♄ Guinea.—*Rouhamon guianensis*, Aubl. ♄ ◡ Guiana.—*Strychnos St. Ignatii*, Berg. ♄ ◡ Cochin China. Philippine Islands.—*S. lucida*, R. Br. ♄ Tropical N. Holland.—*S. madagascariensis*, Pet. Th. ♄ Madagascar.—*S. Tjeute*, Leschen. ♄ ◡—*S. bicirrhosa*, Leschen. ♄ ◡ Tanjore. Ravines at Kandalla. Parr Ghaut.

C. Rauwolfiëæ, Bartl.

Cerbera, L. (*G. Don's Mill. dict.* 4, *p.* 97; excl. Thevetia, Juss. ann. mus.)

1. *Odallam*, Gärtn. (*fr.* 2, *p.* 193, *t.* 124, *f.* 1; by a mistake spelled Odollam.—*Roxb. fl. ind.* 1, *p.* 692; *ed. Carey*, 2, *p.* 526;—*J. Grah. Cat. B. pl. p.* 116;—*Wight. icon.* 2, *t.* 441.—C. Manghas, Sims.; *B. M.* 43, *t.* 1845; not L.—Tanghinia Odollam, *G. Don's Mill. dict.* 4, *p.* 98.—Odallam, *Rheed.* 1, *t.* 39.) L. ♄ Salt swamps on the coast of Malabar and the S. Concan. Common on the Maldive and Laccadive Isles. Fl. $1\frac{3}{4}$ inch, white, fragrant, and fr. nearly throughout the year. *Wood* remarkably soft, spongy, and white.

2. *Manghas*, L. (*fl. zeyl. p.* 106;—*Gärtn. fr.* 2, *p.* 192, *t.* 123 *and* 124;—*Roxb. fl. ind.; ed. Carey*, 2, *p.* 529.—C. quaternifolia, *Roxb. H. B. p.* 19.—C. Lactaria, *Buch.*—Manghas lactescens, *Burm. zeyl. t.* 70, *f.* 1.—Tanghinia Manghas, *G. Don's Mill. dict.* 4, *p.* 98.—Arbor Lactaria, *Rumph.* 2, *t.* 81.) L. ♄ Moluccas. Singapore. Penang. Tenasserim. Martaban. Pegu. Fl. largish, white, inodorous. (*Rumph.*) In H. C. G. Fl.?

3. *parviflora*, Forst. (*pr. No.* 121;—*Hook. and Arn. in Beech. voy pt. bot. p.* 90;—*Wall. Cat.*—Ochrosia parviflora, *G. Don's Mill. dict.* 4, *p.* 99.) ♄ Sandwich Islands. Singapore. In H. C. G. Fl.?

Thevetia, Juss. (*Ann. Mus.* 15, *p.* 346.)

1. *nereifolia*, Juss. (Cerbera Thevetia, *L.*;—*Jacq. amer.* 48, *t.* 34;—*B. M.* 49, *t.* 2309;—*G. Don. o. c. p.* 97;—*J. Grah. Cat. B. pl. p.* 116.—Ahouai nerii folio, flore luteo, *Plum. Cat. pl. amer. p.* 20, *t.* 18.) ♄ New Granada. Mexico. Cuba. Martinique, &c. Domesticated about Serampore. Fl. $2\frac{1}{2}$ inches, bright yellow, sweet-scented, and fr. throughout the year.

Calpicarpum, G. Don. (*Mill. dict.* 4, *p.* 100.)

1. *Roxburghii*, G. Don. (*l. c.*—*Wight icon.* 2, *t.* 431.—Cerbera fruticosa, *Roxb. fl. ind.* 1, *p.* 691; *ed. Carey*, 2, *p.* 526;—*B. Reg.* 5, *t.* 391.) ♄ Pegu. Fl. $2\frac{1}{2}$ inches, pale rose, at the base and throat bright red, nearly throughout the year; fr. rare.

TANGHINIA, Pet. Th. (*Bojer. in Hook. bot. misc.* 3, *p.* 290, *t*, 110.—*G. Don's Mill. dict.* 4, *p.* 97.)

1. *venenifera*, Poir. (*Bojer. l. c.*;—*G. Don. o. c. p.* 98, under Tanghinia veneniflua.—Cerbera Tanghin, *Poir*;—*B. M.* 57, *t.* 2968.) ♄ Madagascar, of which it is the famous ordeal tree. In H. C. G. Fl. $1\frac{1}{2}$ inches, pale rose-coloured, with a deep scarlet throat and a pale green tube; H. S.? fr. 0.

HUNTERIA, Roxb. (*G. Don's Mill. dict.* 4, *p.* 105.)

1. *corymbosa*, Roxb. (*fl. ind.* 1, *p.* 695; *ed. Carey*, 2, *p.* 531;—*G. Don. l. c.*;—*Wight. icon.* 2, *t.* 428.) ♄ Penang. Fl. small, white, May; fr. 0.

RAUWOLFIA, Plum.

1. *canescens*, L. ♄ Jamaica.

ALYXIA, Banks. (*Herb. from R. Br. pr. p.* 469;—*G. Don's Mill. dict.* 4, *p.* 96.)

1. *stellata*, Röm. and Sch. (*syst.* 4, *p.* 439;—*G. Don. l. c.*—Gynopogon stellatum, *Forst. pr. No.* 117; *ch. gen. p.* 36, *t.* 18;—*Labill. sert. cal. p.* 30, *t.* 34.—A. aromatica, *Reinw.*—A. Reinwardtii, *Bl. cat. hort. buitenz. p.* 43;—*Rumph.* 5, *t.* 20.) L. ♄ ◡ Society and Friendly Islands. Amboyna. Fl. small, pure white, Oct.; fr. C. S.
2. *Gynopogon*, Röm. and Sch. (*syst.* 4, *p.* 440;—*G. Don. l. c.*;—*Wall. Endl. pr. fl. norf. p.* 58;—*Bauer. ill. pl. norf. t.* 119.—A. Forsteri, *Cunningh. MSS.* 1830.—Gynopogon Alyxia, *Forst. pr. No.* 118—G. Hunterii, *Roxb. H. B. p.* 19?) ♄ Norfolk Island, in shady, humid parts of woods. Penang. In H. C. G. Fl.?

3? *Moonii*, Wall. (Cameraria oppositifolia, *Moon.*) ♄ Ceylon.

OCHROSIA, Juss.

1. *borbonica*, Juss. ♄ Bourbon.

OPHIOXYLON, L. (*G. Don's Mill. dict.* 4, *p.* 99.)

1. *serpentinum*, L. (*fl. zeyl. p.* 398;—*G. Don. o. c. p.* 100;—*Jacq. hort. schönbr.* 3, *t.* 389;—*B. M.* 20, *t*, 784;—*Roxb. fl. ind.* 1, *p.* 694; *ed. Carey*, 2, *p.* 530;—*J. Grah. Cat. B. pl. p.* 116;—*Rheed.* 6, *t.* 47;—*Rumph. auct. t.* 16.) চন্দ্রা *Chundra*. ছোট চাঁদ *Chhoto-chand*. L. ♄ in a rich soil ◡ or ⌒, in a poor soil small and erect. Moluccas. Java. Cochin China. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Hindoosthan, &c. Fl. 8 lines, white, with the tube pale rose-lilac, the calyx red, and the fruit shining black, throughout the year. *Root* used by the natives as a febrifuge, an alexipharmic, and to promote delivery in tedious cases. (*Roxb.*)
2. *majus*, Wall. ♄ Burma. Differs in stature and greatness of parts from *No.* 1.

WILLUGHBEIA, Scop. (*G. Don's Mill. dict.* 4, *p.* 101.)

1. *edulis*, Roxb. (*fl. ind.* 2, *p.* 57;—*Bl. bijdr. p.* 1024;—*G. Don. l. c.*) L. ♄ ◡ Mauritius. Chittagong. Silhet. Java. Fl. middle-sized, pale rose-coloured, H. S.; fr. 0. Wounded, it produces an indifferent sort

of *Caout chouc*. *Fruit* eaten by the natives where it grows, and by them reckoned good. (*Roxb.*)

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* *Thevetia Ahouai*, Juss. (Cerbera Ahouai, L.; B. M. 19, t. 737.) ♄ Brazil.—*T. peruviana*, Juss. ♄ Peru.—*T. Humboldtii*, (Cerbera Thevetioïdes, H. B. and Kth.) ♄ New Spain.—*Dicaryum subdentatum*, Willd. ♄ S. America.—*Vallesia chiococcoïdes*, H. B. and Kth. ♄ Banks of the Amazon.—*Voacanga Thouarsii*, Röm. and Sch. ♄ Madagascar.—*Rauwolfia nitida*, Jacq.; Lodd. B. Cab. t. 339. ♄ St. Domingo.—*R. sumatrana*, Jack. ♄ Bencoolen.—*Ochrosia maculata*, Jacq. ic. rar. 2, t. 321. ♄ Bourbon.—*Willughbeia martabanica*, Wall. pl. as. rar. 3, t. 272. ♄ ◡ Martaban.—*Anabata odorata*, Willd. ♄ ◡ Banks of the Orinocco, near Esmeralda.—*Pacouria guianensis*, Aubl. ♄ Guiana.—*Couma guianensis*, Aubl. ♄ Guiana.—*Dissolena verticillata*, Lour, ♄ Canton.—*Leuconotis anceps*, Jack. L. ♄ Sumatra.—*Cyrtophyllum peregrinum*, Reinw. ♄ China.—*Cercocoma singaporeana*, Wall. Cat. ♄ Singapore.—*Orchipeda fætida*, Bl. ♄ Java.—*Kopsia arborea*, Bl. ♄ Java.—*Heylygia javanica*, Bl. ♄ ◠ Java.—*Kitabalia arborea*, G. Don. (Hasseltia, (not H. B. and Kth.) arborea, Bl.) ♄ Java, a very beautiful tree.—*Picrophlæus javanensis*, Bl. ♄ Java.—*Chilocarpus suaveolens*, Bl. ♄ ◡ Java.

Apocynaceæ dubiæ.

Alafia, Thouars.

1. *Thouarsii*, Rom. and Sch. (*Syst.* 4, *p.* 436.) ♄ ◡ Madagascar.

ORDER CCXIV.—RETZIACEÆ, Bartl.—Lindl. Nat. Syst. p. 302.

Consists of herbaceous or undershrubby species; 2-3 of *Retzia*, and 2 of *Lonchostoma*; all natives of the C. G. H., except the following.

Retzia, Thunb. (*G. Don's Mill. dict.* 4, *p.* 306.)

1. *pilosa*, Rottl. (*Wall. Cat.*) ♃. Madura. In H. C. G. Fl.?

ORDER CCXV.—ASCLEPIACEÆ, (ASCLEPIADACEÆ, Lindl. Nat. Syst. p. 302.)

Shrubs or occasionally herbs, generally milky, and often twining; by Lindl. (including Cryptolepis and Vicarya) referred to 85 genera, of these Spreng. syst. enumerates for S. America, Mexico, and the W. Indies about 82 species; 33 for N. America; for N. Holland and Van Diemen's Land 22; for Europe 7; for N. Africa 6; for Arabia 6; for Siberia 3; for China

3; for Asia Minor 2; for the Canaries 2; for Madagascar 1; for the Mascarenhas Islands 1; for Senegal 1; and for Japan 1. In S. Africa have been discovered 240 species; (*Harvey*)—and in the E. Indies, chiefly according to *Wight* 221, viz. 22 of *Ceropegia*; 2 of *Caralluma*; 2 of *Boucerosia*; 1 of *Hitchenia*; 3 of *Eriopetalum*; 30 of *Hoya*; 1 of *Pterostelma*; 1 of *Physostelma*; 8 of *Marsdenia*; 1 of *Cosmostigma*; 3 of *Heterostemma*; 5 of *Pergularia*; 11 of *Dischidia*; 14 of *Gymnema*; 4 of *Sarcolobus*; 4 of *Leptadenia*; 1 of *Orthanthera*; 19 of *Tylophora*; 1 of *Belostemma*; 2 of *Iphisia*; 6 of *Calotropis*; 5 of *Oxystelma*; 1 of *Rhaphistemma*; 6 of *Holostemma*; 18 of *Cynanchum*; 1 of *Dæmia*; 3 of *Sarcostemma*; 2 of *Pentasacme*; 8 of *Secamone*; 4 of *Toxicarpus*; 1 of *Goniostemma*; 3 of *Hemidesmus*; 1 of *Brachylepis*; 1 of *Decalepis*; 9 of *Streptocaulon*; 1 of *Gurua* (Finlaysonia, Wall.); 1 of *Cryptostegia*; 2 of *Cryptolepis*; 1 of *Vicarya*; 7 of *Leptostemma*; 1 of *Triplospermum*; 1 of *Conchophyllum*; 1 of *Phyleanthera*; 1 of *Leposma*; and 1 of *Pentatropis*.—About 50 of these belong to the Himalayas, the Khassya Mountains, the Mountains of Assam, &c.; the rest are natives of the two Peninsulas of India, Ceylon, the Sunda Islands, the Moluccas, Bengal and the North-Western Provinces.

The roots of Asclepiadaceæ are generally acrid and stimulating, whence some of them act as emetics; others as diaphoretic. Their milk is usually acrid and bitter, and is always to be suspected, although it probably participates in a slight degree only, in the poisonous qualities of that of Apocynaceæ, if we can judge from the use of some species of food. But very little is known about the real qualities of such plants. (*Lindl.*)

A. Genuinæ, Bartl.

Ceropegia, L. (*R. Br. in mem. Wern. soc.* 1, *p.* 21;—*W. and A. contrib. to ind. bot. p.* 29;—*G. Don's Mill. dict.* 4, *p.* 109.)

1. *lucida*, Wall. (*pl. as. rar.* 2, *t.* 139;—*W. and A. l. c.*;—*G. Don. o. c. p.* 110.) ♄ ⌒ Prome. Khassya Mountains. Fl. 2 inches, green, purple-dotted, C. S.; fr. 0.
2. *juncea*, Roxb. (*Corom.* 1, *t.* 10;—*H. B. p.* 21;—*W. and A. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 117.) ♃. ⌒ Circars. Hedges near Samulcottah. Negapatam. Columala. Tanjore. Kaseraya Jungle. Fl. large, greenish-yellow, and elegantly variegated with purple, C. S.; fr. 0.
3. *Lushii*, Grah. (*B. M.* 61, *t.* 3300;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 117.) ♃. ⌒ Kaseraya Jungle. Fl. middle-sized, yellowish-green, tinged with purple, C. S.; fr. 0.
4. *elegans*, Wall. (*B. M.* 57, *t.* 3015;—*B. Reg.* 20, *t.* 1706;—*W. and A. l. c.*;—*G. Don. l. c.*) ♄ ⌒ Dindygul, Neelgherries. Fl. 1½ inch, purple, dotted with greenish, inodorous, C. S.; fr. 0.
5. *sphenantha*, W. and A. (*Contrib. ind. bot. p.* 31;—*G. Don. o. c. p.* 111.) ♃. ⌒ Neelgherries. In H. C. G. Fl.?
6. *bulbosa*, Roxb. (*Corom.* 1, *t.* 7; *fl. ind.* 2, *p.* 27;—*Wight. in*

Hook. bot. misc. 2, *p.* 99, *suppl. t.* 2;—*J. Grah. Cat. B. pl. p.* 117;—*G. Don. l. c.*) ♃. ⌒ Samulcottah. Negapatam. Malabar Hill. Bombay. Throughout the Concans. Allahabad. Fl. large, erect, with a greenish tube and a purple limb, H. S.; fr. 0. Every part of this plant is eaten by the natives, either raw, or stewed in their curries. The fresh roots, which are as large as a small apple, taste like a raw turnip. (*Roxb.*)

7. *Stephanotis,* Röm. and Sch. (*Syst.* 6, *p.* 4;—*G. Don. l. c.*—Stephanotis, *Pet. Th.*—Isaura alliacea, *Commers. in Poir. encycl.* 3, *p.* 185.) ♄ ⌒ Madagascar. Has been but two years in the garden here, and not fl.
8. *tuberosa,* Roxb. (*Corom.* 1, *t.* 6;—*Wight. icon.* 2, *t.* 353;—*Roxb. H. B.* 21;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 117.—C. Candelabrum, *Roxb. fl. ind.* 2, *p.* 27, and *J. Grah. l. c.*; not L. and excl. all syn.) ♃. ⌒ Coromandel. Negapatam. Has been introduced in H. C. G. In Roxb.'s time it did not fl. there.
9. *stapeliæformis,* Haw. (*G. Don. o. c. p.* 112;—*B. M.* 64, *t.* 3567.) ♄ C. G. H. Introduced in 1840.
10. *Vicaryi,* Wall. Hazarebaugh. R. S. 1841.

Stapelia, L. (*R. Br. in mem. Wern. soc.* 1, *p.* 23;—*G. Don's Mill. dict.* 4. *p.* 114.)

1. *Asterias,* Mass. (*Stap.* 14, *t.* 14;—*B. M.* 15, *t.* 536;—*G. Don. o. c. p.* 115;—*Jacq. stap. t.* 58.) ♄ C. G. H. Fl. very large, dark-violet. The segments variegated with transverse yellowish stripes, the bottom dark-purple, H. S.; but rarely.
2. *revoluta,* Mass. (*Stap. p.* 12, *t.* 10;—*B. M.* 19, *t.* 724.—Tromotriche revoluta, *Haw.*;—*G. Don. o. c. p.* 119.) ♄ C. G. H. Has not fl. here.
3. *variegata,* Thunb. (*Jacq. stap. t.* 24; *misc.* 1, *t.* 4;—*DC. pl. gr. t.* 149.—Orbea variegata, *Haw.*;—*G. Don. o. c. p.* 120.) ♄ C. G. H. Has not fl. here.

The same has been the case with more than 60 species of Stapelia introduced into the garden from C. G. H. by the late Dr. Carey. Indeed most of them perished during the R. S. succeeding their arrival.

Brachystelma, R. Br. (*G. Don's Mill. dict.* 4, *p.* 124.)

1. *tuberosum,* R. Br. (*G. Don. o. c. p.* 125;—*B. Reg.* 9, *t.* 722;—*B. M.* 49, *t.* 2343.—Stapelia tuberosa, *Meerb. t.* 54, *f.* 1.) ♃. C. G. H. Has not fl. here.

Caralluma, R. Br. (*Mem. Wern. soc.* 1, *p.* 25;—*G. Don's Mill. dict.* 4, *p.* 122.)

1. *adscendens,* R. Br. (*l. c.*;—*G. Don. o. c. p.* 123;—*J. Grah. Cat. B. pl. p.* 118.—Stapelia adscendens, *Roxb. Corom.* 1, *t.* 30.) ♄ Peninsula of India. Has been introduced into H. C. G. Fl.?
2. *fimbriata,* Wall. (*pl. as. rar.* 1, *t.* 8;—*G. Don. l. c.*) ♄ Yenangheun, on the banks of the Irawaddi, &c. Fl. 1 inch, above yellowish, trans-

versely purple-streaked, underneath yellow;—upper part purple,—uppermost margin fringed behind with hairs, R. S.; fr. 0.

Boucerosia, W. and A. (*Contrib. ind. bot. p.* 34;—*G. Don's Mill. dict. p.* 123.)

1. *umbellata*, W. and A. (*l. c.*;—*G. Don. l. c.*;—*Wight. icon.* 2, *t.* 495.—Caralluma umbellata, *Haw.*—Stapelia umbellata, *Roxb. Corom.* 3, *t.* 241;—*H. B. p.* 21.) ♄ Southern parts of the Peninsula of India. Fl. 9 lines, fœtid, externally whitish, with dark-purple confluent spots, internally yellowish, with dark-purple circles, May; fr. 0.
2. *crenulata*, W. and A. (*l. c.*;—*G. Don. l. c.*—Caralluma crenulata, *Wall. pl. as. rar.* 1, *p.* 7.) ♄ Banks of the Irawaddi, opposite Ava. Fl. largish, pale greenish-white below, yellow above, and ornamented with broadish transverse stripes. R. S.; fr. 0.

Hoya, R. Br. (*Mem. Wern. soc.* 1, *p.* 26;—*G. Don's Mill. dict.* 4, *p.* 125.)

1. *pendula*, W. and A. (*Contrib. ind. bot. p.* 36;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 119.—*Wight. icon.* 2, *t.* 474.)
   a. Rheedii, W. and A. (Asclepias pendula, *Roxb. fl. ind.* 2, *p.* 36.—*Rheed.* 9, *t.* 13.) L. ♄ ⌒ Circars. Fl. middle-sized, white, fragrant. Has been introduced into H. C. G. Fl.?
2. *linearis*, Wall. (*W. and A. l. c.*;—*G. Don. l. c.*) ♄ ⌒ Nepal. Has been introduced into H. C. G. Fl.?
3. *fusca*, Wall. (*pl. as. rar.* 1, *t.* 75;—*W. and A. o. c. p.* 37;—*G. Don. o. c. p.* 126.) ♄ ⌒ Khassya Mountains. Nepal. Fl. smallish, brownish. Has not fl. here.
4. *pallida*, Lindl. (*B. Reg.* 11, *t.* 951.—H. acuta, *Haw. rev. p.* 4.—H. lanceolata, *Lindl. in Donn. hort. Cantab. ed.* 11, *p.* 92, not Wall.—H. albens, *Mill. brist. cat.* 1826;—H. parasitica, *Wall. Cat.*;—*W. and A. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 119.—Asclepias parasitica, *Roxb. fl. ind.* 2, *p.* 42.) ♃. Paras. ⌣ Mahableshwur. Lanowlee, near Kandalla. Nagotna Jungles. Soonderbuns. Fl. 6 lines in diameter, white, fragrant, with the crown paler than the rest of the flower, purple in the centre, June; fr. 0.
5. *carnosa*, R. Br. (*Mem. Wern. soc.* 1, *p.* 27;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 118;—*W. and A. o. c. p.* 38.—Asclepias carnosa, *L. fil. suppl.* 1, *p.* 170;—*B. M.* 21, *t.* 788;—*Sm. exot. bot.* 2, *t.* 70.—Stapelia chinensis, *Lour.*—Schollia crassifolia, *Jacq. ecl. No.* 2.—Schollia carnosa, *Schrank.*) ♄ ⌒ China, about Canton, as well as various parts of Tropical Asia. Fl. middle-sized, wax-like, whitish, with a crimson dark-purple centre, R. and C. S.; fr. 0.
6. *lanceolata*, Wall. (*W. and A. l. c.*; *G. Don. l. c.*) ♄ ⌒ Nepal. Khassya Mountains. Has been introduced into H. C. G. Fl.?
7. *Pottsii*, Traill? (*Hort. trans.* 7, *p.* 25?—*Lodd. B. Cab. t.* 1609;—*B. M.* 62, *t.* 3425;—*G. Don. l. c.*) ♄ ⌒ Macao. Fl. middle-sized, pale yellow, with a white orange centred crown, smelling strongly of bad honey. In H. C. G. Fl.?

8. *viridiflora*, R. Br. (*Mem. Wern. soc. p.* 26;—*Wight. in Hook. bot. misc.* 2, *p.* 98, *suppl. t.* 1;—*G. Don. o. c. p.* 127;—*J. Grah. Cat. B. pl. p.* 119. excl. syn. Rumph.—Asclepias volubilis, *L.*; *Roxb. fl. ind.* 2, *p.* 36.—A. viridiflora, *Roxb. herb.*—Apocynum tiliæfolium, *Lam.*—*Rheed.* 9, *t.* 15.) তিত কঞ্জা *Tit-Kunya.* L. ♄ ⌒ Coromandel. Bombay, Elephanta. The Ghauts. Mahableshwur. Bengal, (Serampore.) Silhet. Morung. Assam. Fl. smallish, green, inodorous, March, April, and May; fr. R. S.

MARSDENIA, R. Br. (*Mem. Wern. soc.* 1, *p.* 28;—*pr. p.* 460;—*G. Don's Mill. dict. p.* 130.)

1. *tinctoria*, R. Br. (*o. c. p.* 29;—*G. Don. o. c. p.* 131;—Pergularia tinctoria, *Spreng.*—Asclepias tinctoria, *Roxb. fl. ind.* 2, *p.* 43.) ♄ ⌒ Sumatra. Coromandel. Pegu. Silhet. Assam. Fl. small, yellow, H. and R. S.; fr. 0. The leaves yield *Indigo*, and the plant was therefore re-commended by Roxb. for extensive cultivation.
2. *tenacissima*, W. and A. (*Contrib. ind. bot. p.* 41;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 119?—Gymnema tenacissimum, *Spreng.*—Asclepias tenacissima, *Roxb. Corom.* 3, *t.* 240; *fl. ind.* 2, *p.* 51.) L. ♄ ⌒ Rajemahl. Chittagong. Fl. small, greenish-yellow, April; fr. Feb. The milk exuding from wounds in this shrub, thickens into an elastic substance, acting like *Caoutchouc* on black-lead marks. The *bark* of the young luxuriant shoots yields a large portion of beautiful, fine silky fibres, with which the mountaineers of Rajemahl make their bow-strings, on account of their great strength and durability. *Roxb.*
3. *Genevii*, Wall. ♄ ⌒ Mauritius. Introduced in 1840.

COSMOSTIGMA, Wight. (*Contrib. ind. bot. p.* 41;—*G. Don's Mill. dict.* 4, *p.* 132.)

1. *racemosum*, Wight. (*o. c. p.* 42;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 119?—Asclepias racemosa, *Roxb. fl. ind.* 2, *p.* 32.) L. ♄ ⌒ Chittagong. Silhet. Fl. small, yellow, ferruginously speckled. In H. C. G. fl. May and June; fr. August to Oct. (*Roxb.*)

PERGULARIA, L. (*R. Br. in Mem. Wern. soc.* 1, *p.* 31;—*G. Don's Mill. dict.* 4, *p.* 132.)

1. *odoratissima*, Sm. (*Icon. pict. p.* 16;—*B. Reg.* 5, *t.* 412;—*B. Repos. t.* 185;—*Roxb. H. B. p.* 20;—*G. Don. l. c.* excl. syn. Sims.;—*J. Grah. Cat. B. pl. p.* 120, excl. syn. Sims.;—*W. and A. contrib. ind. bot. p.* 43;—*Wight. icon.* 2, *t.* 414.—P. tomentosa, *L. Mant.*?—Cynanchum odoratissimum, Lour.—Asclepias odoratissima, *Roxb. H. B. p.* 20; *fl. ind.* 2, *p.* 46. excl. syn. Sims.—*Rumph. auct. t.* 26, *f.* 1.) কঞ্জ লতা *Kunja-luta. West-coast creeper.* L. ♄ ⌒ Prome. Pagamew. Moluccas. Cochin-China. Bengal, (Serampore.) Patna, &c. Fl. 8 lines, outside whitish, inside greenish, yellow-orange, delightfully fragrant, R. and C. S.; fr. C. S.
2. *minor*, Andr. (*B. Repos. t.* 184;—*B. M.* 20, *t.* 755;—*G. Don. o. c. p.* 133.—Pergulariæ odoratissimæ var. *Sm. icon. pict. fasc.* 3,

p. 16.) ♄ ⌒ Moluccas? Fl. like those of *No.* 1, and exquisitely fragrant.

3. *pallida*, W. and A. (*l. c.*—Asclepias pallida, *Roxb. fl. ind.* 2, *p.* 48.) ♄ ⌒ Burma. Penang. Bengal, (Serampore.) Gungachura. Monghir. Himalayas. Fl. smallish, pale yellow, inodorous, or slightly scented, R. S.; fr. C. S.

DISCHIDIA, R. Br. (*Mem. Wern. soc.* 1, *p.* 32; *pr. p.* 461.—*G. Don's Mill. dict.* 4, *p.* 133.)

1. *bengalensis*, Colebr. (*Linn. trans.* 12, *p.* 357, *t.* 15;—*B. M.* 56, *t.* 2916;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 120.—D. lanceolata, *Wall. Cat.*) ♃. Paras. ⌣ Khassya Mountains. South Concan. Fl. small, greenish-yellowish-white. In H. C. G. Fl.

GYMNEMA, R. Br. (*Mem. Wern. soc.* 1, *p.* 33; *pr. p.* 461;—*G. Don's Mill. dict.* 4, *p.* 135.)

1. *sylvestre*, R. Br. (*pr. l. c.*;—*G. Don. l. c.*;—*Wight. contrib. ind. bot. p.* 44;—*J. Grah. Cat. B. pl. p.* 120;—*Wight. icon.* 2, *t.* 349.—G. parviflorum, *Wall. tent. fl. nep. p.* 50.—Periploca sylvestris, *Willd. sp.* 1, *p.* 1252;—*Phyt.* 1, *p.* 7, *t.* 5, *f.* 3.—Asclepias geminata, *Roxb. fl. ind.* 2, *p.* 45.) ছোট দুধী লতা *Chhoto-doodhee-luta.* ♄ ⌒ Canton. Coromandel. Hills near Bagulcota and Badamee. South Mahratta Country. Bengal, (Serampore.) Silhet. Assam. Nepal. Fl. 2 lines, outside green, inside greenish-yellowish, with a white centre, R. and C. S.; fr. 0.

2. *acuminatum*, Wall. (*tent. fl. nep. p.* 50;—*G. Don. l. c.*—Asclepias geminata, *Roxb. fl. ind.* 2, *p.* 55.) L. ♄ ⌒ Tavoy. Moulmein. Chittagong. Silhet. Fl. small, white, May, June and July; fr.

3. *tingens*, Spreng. (*syst.* 1, *p.* 844;—*G. Don. o. c. p.* 136;—*W. and A. o. c. p.* 45.—Asclepias tingens, *Buch*;—*Roxb. fl. ind.* 2, *p.* 53; *Corom.* 3, *t.* 239.—A. montana, *Roxb. fl. ind.* 2, *p.* 45;—*Rumph.* 5, *t.* 40, *f.* 2?) L. ♄ ⌒ Pegu. Sukanaghur. Kamroop. Fl. middle-sized, cream-coloured, afterwards yellow, R. S.; fr. May. The leaves are said to yield a sort of Indigo.

4. *nepalense*, Wall. (*tent. fl. nep. p.* 50, *t.* 38;—*G. Don. l. c.*) ♄ ⌒ Nepal. In H. C. G. Fl?

SARCOLOBUS, R. Br. (*Mem. Wern. soc.* 1, *p.* 34;—*G. Don's Mill. dict.* 4, *p.* 136.)

1. *globosus*, Wall. (*Asiat. res.* 12, *p.* 577, *t.* 4;—*G. Don. l. c.*) ♄ ⌒ Banks of the Saluen. Rangoon. Soonderbuns. Has not fl. here, though cultivated for several years.

2. *carinatus*, Wall. (*o. c. p.* 578, *t.* 5;—*G. Don. l. c.*) ♄ ⌒ Grows in the same places with the former species. Introduced in 1841.

LEPTADENIA, R. Br. (*Mem. Wern. soc.* 1, *p.* 34;—*G. Don's Mill. dict.* 4, *p.* 124.)

1. *spartea*, Wight. (*Contrib. ind. bot. p.* 48;—*G. Don. l. c.*) ♄ ⌣ Banks of the Jumna. Simla. Himalaya. In H. C. G. Fl.?

TYLOPHORA, R. Br. (*Mem. Wern. soc.* 1, *p.* 28; *pr. p.* 460;—*G. Don's Mill. dict.* 4, *p.* 128.)

1. *tenuissima*, W. and A. (*Contrib. ind. bot. p.* 49;—*G. Don. o. c. p.* 129.—Asclepias tenuissima, *Roxb. fl. ind.* 2, *p.* 41.) ♄ ⌒ Peninsula of India. Bengal. Fl. small, dull purple. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

2. *vomitoria*, (T. asthmatica, *W. and A. contrib. ind. bot. p.* 51.—Cynanchum vomitorium, *Lam.*—C. viridiflorum, *Sims.; B. M.* 44, *t.* 1929;—*Spreng. syst.* 1, *p.* 852.—Asclepias vomitoria, *Kön. in Hb. Banks; Roxb. mus. ind. or. t.* 608.—A. asthmatica, *Roxb. fl. ind.* 2, *p.* 33;—*Willd.;—Röm. and. Sch.;—Spreng.*—Cynanchum Ipecacuanha, *Willd.*) অন্ত মূল *Unto-mool.* ♄ ⌣ Peninsula of India. Bengal, (Serampore.) Segaen, &c. Fl. 5½ lines in diameter, externally pale greenish with a faint tinge of purple, internally light-purple, May and June; fr. Aug. Sept. and Oct. The *roots* are used on the Coast of Coromandel, as a substitute for ipecacuanha. Roxb. often prescribed this remedy himself, and found it answer as well as the latter. Given in a pretty large dose, it answers as an emetic, in smaller, often repeated doses as a cathartic, and in both ways effectually; the natives also employ it as an emetic, by rubbing upon a stone 3-4 inches of the fresh root, and mixing it with a little water for a dose. It generally purges at the same time. Dr. P. Russel was informed by Dr. J. Anderson, the Physician General at Madras, that he had many years before known it used both by the European and Native troops, with great success in the dysentery which happened at that time to be epidemic in the camp. (*Roxb.*)

ASCLEPIAS, L. (*R. Br. in Mem. Wern. soc. p.* 36;—*G. Don's Mill. dict.* 4, *p.* 139.)

1. *curassavica*, L. (*G. Don. l. c.;—B. Cab. t.* 349;—*B. Reg.* 1, *t.* 81;—*Roxb. H. B. p.* 20;—*J. Grah. Cat. B. pl. p.* 120, not Lour.—A. bicolor, *Mönch.*) ♄ Curaçao. Essequebo. Cumana. Trinidad; now found in most parts of Tropical America and India. Fl. nearly 6 lines, saffron coloured with a light orange-coloured crown, and fr. nearly throughout the year. The *juice* of this plant, made into a syrup, is said to be a powerful anthelmintic, and is given as such, in the West Indies, to children in doses from a tea to table-spoonful. The juice and pounded plant is said to be an excellent styptic. The *root*, dried and reduced to a powder, is frequently used by the Negroes as an emetic, and hence its name of *Wild, or Bastard Ipecacuanha.* (*Mill. dict.*)

GOMPHOCARPUS, R. Br. (*Mem. Wern. soc.* 1, *p.* 37;—*G. Don's Mill. dict.* 4, *p.* 143.)

1. *fruticosus*, R. Br. (*l. c.;—G. Don. l. c.;—B. M.* 39, *t.* 1628.—Asclepias fruticosa, *L.;—Roxb. H. B. p.* 20.—A. glabra. *Mill. dict.*—Apocynum salicifolium, *Medic.*) ♄ C. G. H., beyond the first range of

mountains. Fl. middle-sized, white, with a pale greenish crown, tinged with purplish, R. S.; fr. R. and C. S., but rarely.

? PENTATROPIS, R. Br. (*in Salt. trav. app. from W. and A. contrib. ind. bot. p.* 52;—*G. Don's Mill. dict.* 4, *p.* 145.)

1. *microphylla*, W. and A. (*l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 120.—*Wight. icon.* 2, *t.* 352.—A. microphylla, *Roxb. fl. ind.* 2, *p.* 35;—*Schultes. syst.* 6, *p.* 85;—*Rheed.* 9, *t.* 17.) ♄ ⌒ Coromandel. Bengal, (Serampore.) Banks of the Jumna. Fl. small, greenish-red, R. S.; fr. C. S.

CALOTROPIS, R. Br. (*Mem. Wern. soc.* 1, *p.* 39;—*W. and A. o. c. p.* 53;—*G. Don's Mill. dict.* 4, *p.* 146.)

1. *gigantea*, R. Br. (*l. c.*;—*W. and A. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 120;—*B. Reg.* 4, *t.* 58.—Asclepias gigantea, *Willd.*;—*L. ?*—*Ait.*;—*Jacq. obs.* 3, *p.* 17, *t.* 69;—*Roxb. fl. ind.* 2, *p.* 30;—*Rheed.* 2, *t.* 31;—*Rumph. auct. t.* 14, *f.* 1.) ♄ Moluccas. Sunda Islands. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Hindoosthan. Assam, &c. Fl. 10-12 lines long, and fr. throughout the year. A large quantity of an acrid, milky juice flows from this plant when wounded. The natives apply it to various medicinal purposes, while they employ the plant itself and its preparations to cure all sorts of nervous disorders. In 1811, it was subjected to a regular set of medical experiments by Dr. G. Playfair, who, with many of his brethren, bears ample testimony of its efficacy in leprosy, lues, tenia, herpes, dropsy, rheumatism, hectic and intermittent fever. The powdered bark is given in doses of 5-6 grains twice a day. It will now and then occasion nausea and vomiting, but such symptoms are easily removed by a dose of castor oil. (*On the Madar, and its medical uses, Phys. and med. trans. Calc.* 1, *p.* 77-102.—*Account of the use of Akund or Mudar in the leprosy. Phys. and med. trans. Calc.* 2, 409-410.)

   α. *lilacina*, (আকন্দ *Akundo.*) Fl. beneath whitish with a tinge of lilac, above whitish light purple, with the crown purplish lilac, inodorous, or nearly so.

   β. *alba*, (শ্বেত আকন্দ *Shwet-Akundo.*) Fl. white, cream-coloured, inodorous, or nearly so.

2. *procera*, R. Br. (*in Hort. Kew. ed.* 2, *vol.* 2, *p.* 78;—*G. Don. l. c.*;—*B. Reg.* 21, *t.* 1792.—Asclepias procera, *Ait. Hort. Kew. ed.* 1, *vol.* 1, *p.* 305;—*Willd.*—A. gigantea, *Andr. B. Repos. t.* 271, not Willd.; *Lam.*—Beidelsar, *Prosp. Alp. ægypt. cap.* 25, *c. W.*) ♄ N. Africa. Persia. Fl. 10-12 lines, inodorous, externally pale silverish, internally intensely purple-red, towards the top paler, towards the centre spotted, March and April; fr. 0.

This plant is by some esteemed more efficacious in the cure of leprosy than the preceding species.

3. *herbacea*, Carey, MSS. (*Wight. contrib. ind. bot. p.* 54;—*G. Don. o. c. p.* 147;—*Wight. icon.* 2, *t.* 492.—Asclepias herbacea, *Roxb. fl. ind.* 2,

p. 50.) ছোট আকন্দ *Chhoto-akundo.* ♄ Interior of Bengal. Fl. largish, like those of Calotropis gigantea, *a.* Fl. C. S.; fr. 0.

RHAPHISTEMMA, Wall. (*W. and A. contrib. ind. bot. p.* 54;—*G. Don's Mill. dict.* 4, *p.* 145.)

1. *pulchellum*, Wall. (*pl. as. rar.* 2, *t.* 163;—*W. and A. l. c.*;—*G. Don. l. c.*—Asclepias pulchella, *Roxb. fl. ind.* 2, *p.* 54.) ♄ ⌒ Tavoy. Pegu. Khassya Mountains. Assam. Fl. 1 inch, pure white, inodorous, R. S.; fr. 0.

OXYSTELMA, R. Br. (*Mem. Wern. soc.* 1, *p.* 40; *pr. p.* 462;—*G. Don's Mill. dict.* 4, *p.* 144;—*Wight. contrib. ind. bot. p.* 54.)

1. *esculentum*, R. Br. (*l. c.*;—*G. Don. l. c.*;—*Wight. l. c.*;—*J. Grah. Cat. B. pl.*—Periploca esculenta, *Kön.*;—*L. fil. suppl.* 168;—*Roxb. Corom*, 1. *t.* 11.—Asclepias rosea, *Roxb. fl. ind.* 2, *p.* 40.) দুধ লতা *Doodh-luta.* ♄ ⌒ Coromandel. Bombay. Bengal, (Serampore.) Assam, &c. Fl. 7½ lines, externally white, internally rose-coloured and purple-veined, with a green tube, inodorous, R. S.; fr. C. S. Cattle eat it, but not the natives. (*Roxb.*)

HOLOSTEMMA, R. Br. (*Mem. Wern. soc.* 1, *p.* 42;—*Wight. contrib. ind. bot. p.* 55;—*G. Don's Mill. dict.* 4, *p.* 149.)

1. *Rheedianum*, Spreng. (*syst.* 1, *p.* 851.—H. Rheedii, *G. Don. l. c.*;—*Wight. l. c.*;—*J. Grah. Cat. B. pl. p.* 121.—H. Ada-Kodien, *Röm. and Sch.*—Sarcostemma annulare, *Roth.*;—*Röm. and Sch.*—Asclepias annularia, *Roxb. fl. ind.* 2, *p.* 37;—*Rheed.* 9, *t.* 7.) ♄ ⌒ Mysore. Samulcottah. Bombay; Malabar Hill, Salsette. Assam. Kanour. Fl. large, the colour a beautiful mixture of red, green and white, 'inodorous,' (*Rheed.*) 'agreeably fragrant, edible and sweet.' (*Nimmo.*) In H. C. G. fl. R. S.; fr. 0. (*Roxb.*)

CYNANCHUM, L. (*R. Br. in Mem. Wern. soc.* 1, *p.* 43;—*W. and A. contrib. ind. bot. p.* 55;—*G. Don's Mill. dict.* 4, *p.* 150.)

1. *pauciflorum*, R. Br. (*o. c. p.* 45;—*W. and A. l. c.*;—*G. Don. o. c. p.* 151;—*J. Grah. Cat. B. pl. p.* 121;—*Wight. icon.* 2, *t.* 354.—Periploca tunicata, *Retz.*;—*Willd. phyt.* 1, *p.* 7, *No.* 23, *t.* 5, *f.* 3.—Asclepias tunicata, *Roxb. fl. ind.* 2, *p.* 35.) ছাগল পাটী *Chhagul-patee.* L. ♄ ⌒ Peninsula of India. Bengal, (Serampore). Fl. small, rust-coloured. R. S.; fr. C. S.

DÆMIA, R. Br. (*Wern. soc. Mem.* 1, *p.* 50;—*Wight. contrib. ind. bot. p.* 59;—*G. Don's Mill. dict.* 4, *p.* 156.)

1. *extensa*, R. Br. (*l. c.*;—*Wight. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 122.—Cynanchum extensum, *Jacq. icon. rar.* 1, *t.* 54;—*Ait. hort. Kew. vol.* 1, *p.* 303.—C. cordifolium, *Retz.*—C. bicolor, *Andr. B. Repos. t.* 562.—Asclepias echinata, *Roxb. fl. ind.* 2, *p.* 44.) ছাগল বাঁটী *Chhagul-bantee.* ♄ ⌒ Peninsula of India. Bengal, (Serampore). Himalayas. Fl. 6 lines, pale green, internally tinged with purple, not unpleasantly smelling, (very fœtid, *Roxb.*) R. and C. S., fr. C. and H. S.

SARCOSTEMMA, R. Br. (*Mem. Wern. soc.* 1, *p.* 50;—*W. and A. contrib. ind. bot. p.* 59;—*G. Don's Mill. dict.* 4, *p.* 156.)

1. *acidum*, (S. brevistigma, *W. and A. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 122, *No.* 259, excl. syn. R. Br.—Asclepias acida, *Roxb. H. B. p.* 20; *fl. ind.* 2, *p.* 31; excl. syn.) শোম লতা *Shomluta.* ♄ ⌒ Coromandel. Bombay Presidency. Rocky Hills about Loonee. The barren parts of the plain between Dowlatabad and the Godavery. The Kamatkee and Katruj Ghauts; throughout the Deccan. Isle of Perim. Bengal, (Serampore, but very rarely. The late Dr. Carey had only seen it once here.) Fl. small, white, R. S.; fr. 0. Dr. Gibson mentions, that it is often brought from a distance by farmers, to extirpate *white ants* from their Sugar-cane fields. A bundle of the twigs is put in the trough of the well from which the field is watered, along with a bag of common salt hard packed, so that it may dissolve gradually. The water so impregnated, destroys the ants without injuring the crop. (*J. Grah.*) "This plant yields a larger portion of very pure milky juice than any other I know, and what is rare, it is of a mild nature, and acid taste. The native travellers often suck the tender shoots to allay their thirst." (*Roxb.*)

PENTASACME, Wall. (*W. and A. contrib. ind. bot. p.* 60;—*G. Don's Mill. dict.* 4, *p.* 159.)

1. *caudata*, Wall. (*W. and A. l. c.*;—*G. Don. l. c.*) ♃. Khassya Mountains. Lahore. Fl. small, white, C. S.; fr. 0.

PHYSIANTHUS, Mart. (*Nov. gen. and sp.* 1, *p.* 53.)

1. *albens*, Mart. (*o. c. t.* 32;—*Spreng. c. p. p.* 112;—*B. M.* 59, *t.* 3201;—*B. Reg.* 21, *t.* 1759.—Araujia albens, *G. Don's Mill. dict.* 4, *p.* 149.) ♄ ⌒ Buenos Ayres. Mexico. Has been introduced into the garden here twice, but both times died during the R. S., though sheltered.

SECAMONE, R. Br. (*Mem. Wern. soc.* 1, *p.* 53;—*G. Don's Mill. dict.* 4, *p.* 159;—*W. and A. contrib. ind. bot. p.* 60.)

1. *emetica*, R. Br. (*l. c.*;—*Schult. syst.* 6, *p.* 124;—*G. Don. l. c.*;—*W. and A. l. c.*;—Periploca emetica, *Retz.*;—*Willd. phyt.* 1, *p.* 6, *t.* 5, *f.* 2.—Asclepias Pseudasarsa, β. angustifolia, *Roxb. fl. ind.* 2, *p.* 39.) শাদা বুড়ি *Shada-boori.* ♄ ⌒ Peninsula of India. Bengal. Fl. 0; fr. 0.

TOXOCARPUS, W. and A. (*Contrib. ind. bot. p.* 61;—*G. Don's Mill. dict.* 4, *p.* 160.)

1. *laurifolius*, Wight. (*Contrib. l. c.*;—*G. Don. l. c.*—Asclepias laurifolia, *Roxb. fl. ind.* 2. *p.* 49.—A. micrantha, *Roxb. o. c. p.* 50.) L. ♄ ⌣ Chittagong. Tippera. Cawnpore. Fl. very small, yellow R. S.; fr. 0.

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* *Ceropegia acuminata*, Roxb. Corom. 1, t. 8. ♃. ⌒ Samulcottah. Dharwar.—*C. Arnottiana*, Wight. ♃. ⌒ Hills about Prome.—*Hitchenia indica*, W. and A.; Wight. icon. 2, t. 355. ♄ Peninsula of India.—*Leptadenia reticulata*, W. and A.; Wight. icon. 2, t. 350. ♄ ⌒ Both

Peninsulas of India.—*L. imberbis*, Wight. ♄ ⌒ Meerut.—*Orthanthera viminea*, Wight; Royle ill. t. 66, f. 1. ♄ Doab.—*Hoya orbiculata*, Wall. ♄ ⌒ Prome.—*H. longifolia*, Wall. ♄ ⌒ Singapore. Mussooree. —*H. parviflora*, Wight. ♄ ⌒ Moulmein.—*H. Hookeriana*, Wight. ♄ ⌒ Chittagong. Silhet.—*H. trinervis*, Trail. ♄ ⌒ China.—*H. australis*, R. Br. ♄ ⌒ Tropical N. Holland.—*H. latifolia*, G. Don. (H. macrophylla, Wight, not Bl.) ♄ ⌒ Penang.—*H. Lacuna*, Buch. ♄ ⌒ Segaen.—*Pterostelma acuminatum*, Wight. ♄ ⌒ Silhet.—*Physostelma Wallichii*, Wight. ♄ ⌒ Singapore.—*Tylophora flexuosa*, R. Br. ♄ ⌒ Tropical N. Holland.—*T. mollissima*, Wall. ♄ ⌒ Neelgherries.—*T. exilis*, Colebr. ♄ ⌒ Khassya Mountains.—*Marsdenia velutina*, R. Br. ♄ ⌒ Tropical N. Holland.—*M. viridiflora*, R. Br. ♄ ⌒ Tropical N. Holland.—*M. clausa*, R. Br. ♄ ⌒ Jamaica.—*M. Roylii*, W. and A. ♄ ⌒ Simla.—*Heterostemma alatum*, Wight. ♄ Mussooree.—*Pergularia sanguinolenta*, Lindl.; B. M. 52, t. 2532. ♄ ⌒ Sierra Leona.—*Dischidia cuneifolia*, Wall. ♄ Banks of the Attran.—*Baxtera loniceroïdes*, Lindl. (Harrisonia loniceroïdes, Hook.; B. M. 53, t. 2699.) ♄ Brazil.—*Gymnema geminatum*, R. Br. ♄ ⌒ Tropical N. Holland.—*G. molle*, Wall. ♄ ⌒ Irawaddi.—*G. latifolium*, Wall. ♄ ⌒ Tavoy. Silhet.—*G. elegans*, W. and A. ♄ ⌒ Dindygul.—*G. sagittatum*, Wall. ♄ ⌒ Khassya Mountains.—*G. Wallichii*, Wight. ♄ ⌒ Singapore. —*G. trinerve*, R. Br. ♄ ⌒ Tropical N. Holland.—*Gonolobus crispiflorus*, R. Br. ♄ ⌒ Jamaica.—*G. viridiflorus*, Röm. and Sch.; B. Reg. 14, t. 1126. ♄ ⌒ Essequebo.—*G. rostratus*, R. Br. ♄ ⌒ Trinidad.—*G. niger*, R. Br. B. M. 55, t. 2799. ♄ ⌒ Mexico.—*G. prostratus*, R. Br. ♃ ⌒ Mexico.—*G. diadematus*, Ker.; B. Reg. 3, t. 252. ♄ ⌒ Mexico.—*Asclepias pulchella*, H. B. and Kth. ♃ Mexico.—*A. linifolia*, Hort. Madrit. (A. salicifolia, B. Cab. t. 272.) ♃ Mexico. —*A. linaria*, Cav. ♄ Mexico.—*A. auriculata*, H. B. and Kth. ♃ Mexico.—*Oxystelma Wallichii*, Wight. ♄ ⌒ Banks of the Ganges and Irawaddi.—*O. carnosum*, R. Br. ♄ ⌒ Tropical N. Holland.—*Iphisia multiflora*, W. and A. ♄ ⌒ Neelgherries.—*Urostelma chinense*, Bunge. ♄ ⌒ China.—*Calotropis Hamiltonii*, Wight. ♄ B. Repos. t. 271. Deccan.—*C. Wallichii*, Wight. ♄ Melloon.—*C. heterophylla*, Wall. ♄ Irawaddi.—*Oxypetalum Banksii*, Schult. ♄ ⌒ Rio Janeiro.—*O. riparium*, Mart. ♄ ⌒ Mexico.—*Macroscepis obovata*, H. B. and Kth. ♄ ⌒ Campeche.—*Holostemma fragrans*, Wall. ♄ ⌒ Irawaddi.—*H. scandens*, Lindl. ♄ S. America?—*Cynanchum pedunculatum*, R. Br. ♄ ⌒ Tropical N. Holland.—*C. erubescens*, R. Br. ♄ ⌒ Tropical N. Holland.—*C. Wallichii*, Wight. ♄ ⌒ Khassya Mountains.—*C. callialatum*, Buch. ♄ ⌒ Banks of the Ganges.—*C. foetidum*, H. B. and Kth. ♄ ⌒ Mexico.—*Ditassa Banksii*, Röm. and Sch. ♄ ⌒ Rio Janeiro.—*Sarcostemma viminale*, R. Br. ♄ ⌒ India.—*S. australe*, R. Br. ♄ ⌒ Tropical N. Holland.—*S. Brownii*, Meyer. ♃ ⌒ Carthagena. —*Philibertia solanoïdes*, H. B. and Kth. ♄ ⌒ Banks of the Amazon.—

P. grandiflora, Hook.; B. M. 64, t. 3618. ♄ ⌒ Buenos Ayres.—*Tweedia versicolor*, Hook.; B. M. 65, t. 3630. ♄ ⌒ Tucuman?—*Toxocarpus Roxburghii*, W. and A. Wight. icon. 2, t. 475. ♄ ⌒ Circars.—*T. Kleinii*, W. and A. ♄ ⌒ Negapatam. Salsette.—*T. crassifolius*, Wight ♄ ⌒ Silhet.—*Goniostemma acuminatum*, Wight. ♄ ⌒ Silhet.

B. PERIPLOCEÆ, Bartl.

HEMIDESMUS, R. Br. (*Mem. Wern. soc.* 1, *p.* 56;—*W. and A. contrib. ind. bot. p.* 62;—*G. Don's Mill. dict.* 4, *p.* 161.)

1. *indicus*, R. Br. (*Hort. Kew. ed.* 2, *vol.* 2, *p.* 75;—*W. and A. o. c. p.* 63;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 122.—Periploca indica, *Willd.*—Asclepias Pseudasarsa, *a.* latifolia, *Roxb. fl. ind.* 2, *p.* 39. excl. syn. L. and Retz.—*Rheed.* 10, *t.* 34.) অনন্ত মূল *Ununto-mool.* ♄ ⌒ Ceylon. Coromandel. Malabar Hill. Bombay. Mazagaum. Abundant on the Hills at Wurgaum. Bengal, (Serampore) &c. Fl. $2\frac{1}{3}$ line, on the outside pale green, on the inside, dark blood-coloured, R. S.; fr. rare. The *roots* are used as an excellent substitute for Sarsaparilla. The natives employ them particularly for the thrush in children, giving about a dram every morning and evening of the powder fried in butter. (*Roxb.*)

GURUA, Buch. (Finlaysonia, *Wall.*;—*Wight's contrib. ind. bot. p.* 65;—*G. Don's Mill. dict.* 4, *p.* 162.)

1. *obovata*, Buch. (*Wall. pl. as. rar.* 2, *t.* 162.—*Wight. l. c.*;—*G. Don. o. c. p.* 163.) L. ♄ ⌒ Soonderbuns. Æstuaries of the Irawaddi, &c. Fl. small, yellowish-brownish, smelling like those of Stapeliæ. Has not fl. here. Introduced in 1838.

PERIPLOCA, L. (*R. Br. in Mem. Wern. soc.* 1, *p.* 57;—*G. Don's Mill. dict.* 4, *p.* 163.)

1. *græca*, L. (*Spec. p.* 309;—*G. Don. l. c.*;—*Jacq. misc.* 1, *p.* 11, *t.* 1, *f.* 2;—*Sibth. and Sm. fl. gr. t.* 249;—*B. M.* 49, *t.* 2289;—*B. Reg.* 10, *t.* 803.—P. maculata, *Mönch.*) ♄ ⌒ S. France. Hedges about Bursa. Bithynia. Mount Athos. Has been introduced into H. C. G. Fl.?

CRYPTOSTEGIA, R. Br. (*B. Reg.* 5, *t.* 435;—*W. and A. contrib. ind. bot. p.* 66;—*G. Don's Mill. dict.* 4, *p.* 164.)

1. *grandiflora*, R. Br. (*B. Reg. l. c.*;—*W. and A. l. c.*;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 122.—Nerium grandiflorum, *Roxb. fl. ind.* 2, *p.* 10.) L. ♄ ⌒ Peninsula of India. Fl. 2 inches, internally white, externally pale rose white lilac, throughout the year; fr. seldom.

VICARYA, Wall. (*MSS.* 1841.—Jenkinsia, *Wall. MSS.* 1840,)

1. *cristata*, Wall. (*MSS.* 1841.—Jenkinsia cristata, *Wall. MSS.* 1840, not Griffith.*) ♄ ⌒ Assam. Introduced in 1840.

CRYPTOLEPIS, R. Br. (*Mem. Wern. soc.* 1, *p.* 69;—*G. Don's Mill. dict.* 4, *p.* 82.)

1. *reticulata*, Wall. (*Cat.*—C. Buchanani, *G. Don. l. c.*;—*J. Grah. Cat.*

* Myriopteron paniculatum. Griff.

B. pl. p. 113;—*Wight. icon.* 2, *t.* 494; scarcely R. Br. Spreng. syst. 1, p. 636.—Nerium reticulatum, *Roxb. fl. ind.* 2, *p.* 8;—*Rheed.* 9, *t.* 11.) L. ♄ ⌒ Coromandel. Worlee and Malabar Hills. Elephanta. Bengal, (Serampore.) Nepal. Kemaon. Nahn. Fl. small, yellow, inodorous, R. S.; fr. 0.

2. *elegans*, Wall. (*Cat.*—*G. Don. l. c.*) L. ♄ Silhet. Assam. Fl. 1½ inch, pure white, delightfully fragrant, Feb. and March; fr. 0.

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* *Brachylepis nervosa*, W. and A. ♄ ⌒ Neelgherries.—*Decalepis Hamiltonii*, W. and A. ♄ ⌒? Locality in India unknown.—*Streptocaulon tomentosum*, Wight. ♃. ⌒ Taong-Dong.—*S. Wallichii*, Wight. ♃. ⌒ Penang. Singapore.—*S. extensum*, Wight. ♃. ⌒ Tavoy. Rangoon.—*S. calophyllum*, Wight. ♃. ⌒ Nepal.—*Hemidesmus pubescens*, W. and A. ♄ ⌒ Vendalore.—*H. Wallichii*. Wight. ♄ ⌒ Prome.—*Gymnanthera nitida*, R. Br. ♄ ⌒ Tropical N. Holland.

ORDER CCXVI.—LOGANIACEÆ, Lindl. Nat. Syst. p. 306.

Herbs, shrubs, or trees, by Lindl. referred to 7 genera. Of these, Spreng. syst. assigns 12 species to New Holland and the South Sea Islands; 4 to Brazil and Guiana; 1 to Guinea; and 2 to the Mascarenhas Islands.—In the E. Indies have been discovered 1 species of *Geniostoma*, (Spreng. c. p. p. 59.—Straits of Malacca); 4 of *Gardnera*, (Himalayas. Khassya Mountains); and 15 of *Fagræa*, (1 from the Khassya Mountains; the rest from the Peninsula of Malacca, the Sunda Islands, and Ceylon, 1 is from China, but cultivated at Penang.) "Properties unknown." (*Lindl.*)

? GARDNERA, Wall. (*Roxb. fl. ind.; ed. Carey*, 1, *p.* 400; *ibid.* 2, *p.* 318; —*D. Don. pr. fl. nep. p.* 132;—*G. Don's Mill. dict.* 4, *p.* 66.)

1. *ovata*, Wall. (*l. c.*;—*pl. as. rar.* 3, *t.* 231;—*G. Don. o. c. p.* 67.) L. ♄ ⌒ Khassya Mountains. Nepal. Fl. smallish, yellow, April; fr. 0.

FAGRÆA, Thunb. (*G. Don's Mill. dict.* 4, *p.* 68.)

1. *obovata*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 33;—*G. Don. l. c.*) ♄ Khassya Mountains. Singapore. Fl. white, fragrant, large. Has been cultivated in the garden here for many years, without flowering.

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* *Geniostoma febrifugum*, Spreng. ♄ Brazil.—*G. acuminatum*, Wall. (Spreng.) ♄ ⌒ Malacca.—*Gardnera angustifolia*, Wall. ♄ ⌒ Nepal. —*G. glabra*, Wall. ♄ ⌒ Silhet.—*Usteria guineensis*, Willd. ♄ Guinea. —*Fagræa zeylanica*, L. ♄ Ceylon.—*F. fragrans*, Roxb. ♄ China. Cultivated at Penang.—*F. malayana*, Mart. ♄ Penang.—*F. lanceolata*, Bl. ♄ Java. Penang.—*F. racemosa*. Jack. ♄ Penang.—*F. volubilis*, Wall. ♄ ⌒ Bencoolen.—*F. auriculata*, Jack. Wall. pl. as. rar. 3, t. 222. ♄ Paras. Java. Singapore.—*Gärtnera vaginata*, Lam. ♄ Mascarenhas Islands.—*Pagamea guianensis*, Aubl. ♄ Guiana. N. Brazil.

ORDER CCXVII.—POTALIACEÆ, R. Br. Lindl. Nat. Syst. p. 306.

Trees or shrubs, natives of Tropical Africa and S. America, amounting only to 4 species.

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* *Potalia amara*, Aubl. ♄ Guiana.—*P. resinifera*, Mart. ♄ Brazil.—*Anthocleista nobilis*, G. Don. 5 Sierra Leona.—*A. macrophylla*, G. Don. 5 Sierra Leona.

ORDER CCXVIII.—OLEACEÆ, Lindl. Nat. Syst. p. 307.

THE OLIVE TRIBE.

Trees or shrubs, by Lindl. referred to 14 genera. Of these, Spreng. syst. assigns 28 species to N. America; 13 to Europe; 7 to New Holland and Van Diemen's Land; 7 to China and Japan; 4 to S. America, and the W. Indies; 3 to Syria, and Asia Minor; 3 to S. Africa; 3 to the Mascarenhas Islands; 1 to the Canaries; 1 to Tauria; and 1 to Persia. In the E. Indies have been discovered 42 species, viz. 20 of *Olea;* 10 of *Linociera;* 3 of *Ligustrum;* 1 of *Syringa;* 1 of *Pachyderma;* 1 of *Myxopyrum;* 1-2 of *Chondrospermum;* and 4 of *Ornus.* About 18 of these have been discovered in Nepal, the Himalayas and the Khassya Mountains; the rest are natives of the two Peninsulas of India, Ceylon, Java, and the Moluccas.

"This order (and Aurantiaceæ) offer one of the few instances of oil being contained in the pericarp, from which olive oil is entirely expressed. In most other plants oil is yielded by the seed." (*Lindl.*)

Olea, Tournef. (*G. Don's Mill. dict.* 4, *p.* 46.) *Olive.*

1. *sativa*, Hoffmansegg. (*G. Don. l. c.;—J. Grah. Cat. B. pl. p.* 109.—Olea europæa; *L.* β. *sp.* 1, *p.* 11;—*Vahl. enum.* 1, *p.* 39;—*Brot. fl. lusit.* 1, *p.* 10;—*All. pedem.* 1, *p.* 121, *No.* 449;—*Wood. med. bot. p.* 369, *t.* 136;—*Plenck. icon. t.* 11;—*Roxb. H. B. p.* 3.—O. europæa, longifolia,—*Lodd. B. Cab. t.* 456.—O. longifolia, *Mönch.*—O. polymorpha, *Risso.*) *Cultivated Olive.* 5 Aleppo. Lebanon. Was introduced into H. C. G. in 1800, but had not fl. up to 1814.—J. Grah. l. c. says: "The climate of India seems to suit it, and it may possibly hereafter become of some importance."
2. *lancea*, Lam. (*Ill.* 1, *p.* 29, *n.* 78. *Ejusd. Cyclopædia. p.* 4, 544.) 5 Mauritius. Bourbon.
3. *capensis*, L. (*G. Don. o. c. p.* 48;—*B. Reg.* 8, *t.* 613.—O. buxifolia, *Mill. dict.*) 5 Has not fl. here, though cultivated for several years.

γ. *undulata*, Ait. (O. undulata, *Jacq. hort. schönbr.* 1, *t.* 2;—*Lodd. B. Cab. t.* 379;—*B. M.* 58, *t.* 309.—O. laurifolia, *Lam.*) 5 C. G. H. Introduced in 1841.

4. *fragrans*, Thunb. (*fl. jap. p.* 18, *t.* 2;—*G. Don. l. c.*;—*B. M.* 38, *t.* 1552;—*Roxb. H. B. p.* 3;—*J. Grah. Cat. B. pl. p.* 109.—Osmanthus fragrans, *Lour.*) ♄ Japan. China. Cochin China. Fl. small, white, delightfully fragrant, C. S.; fr. 0.

β. *rubra*; Fl. red.

Much cultivated in its native country for the sake of its flowers, which are said to be put into teas to give them flavour.

5. *chrysophylla*, Lam. (*Ill. p.* 29, *n.* 77. *Ejusd. cyclop.* 4, 544.) ♄ Bourbon.

6. *grandiflora*, Wall. (*Cat.*;—*G. Don. l. c.*) ♄ Nepal. Has not flowered in the garden, though cultivated for many years.

7. *attenuata*, Wall. (*Cat.*;—*G. Don. l. c.*) 5 Banks of the Martaban. Introduced in 1840.

8. *clavata*, G. Don. (*l. c.*—O. Roxburghii, *Spreng*; not O. Roxburghiana. Röm and Sch.—Phillyræa paniculata, *Roxb. fl. ind* 1, *p.* 100; *ed. Carey*, 1, *p.* 100;—*J. Grah. Cat. B. pl. p.* 108.—not Olea paniculata, Roxb. nor R Br.) 5 China. Fl. small, pure white, somewhat fragrant, H. S.; fr. 0.

9. *robusta*, Wall. (*Cat.*—*G. Don. o. c. p.* 49.—Phillyræa robusta, *Roxb. fl. ind.* 1, *p.* 101; *ed. Carey*, 1, *p.* 101.) L. ♄ Silhet. Fl. small, white, June and July; fr. Jan. and Feb. Furnishes the natives of Silhet with very hard, durable wood. (*Roxb.*)

10. *glandulifera*, Wall. (*Cat.*;—*G. Don. l. c.*) ♄ Mountains near Deyra-Dhoon. Kemaon. Has been cultivated for many years in the garden here, without flowering.

11. *Roxburghiana*, Röm. and Sch. (*syst.* 1, *p.* 77;—*G. Don. l. c.*—O. paniculata, *Roxb. fl. ind.* 1, *p.* 105; *ed. Carey*, 1, *p.* 104; not R. Br.) 5 Circar Mountains. Fl. small, white. Has been introduced into H. C. G.?

12. *dioica*, Roxb. (*fl. ind.* 1, *p.* 106; *ed. Carey*, 1, *p.* 105;—*J. Grah. Cat. B. pl. p.* 109;—*G. Don. l. c.*) L. ♄ Chittagong. Silhet. Fl. small, white, March; fr. June, but rarely. *Timber* considered excellent, and put to many uses by the natives. (*Roxb.*)

13. *acuminata*, Wall. ♄ Nepal.

14. *verrucosa*, Lk. (*Enum.* 1, *p.* 33;—*G. Don. l. c.*—O. europæa, *Thunb.* not L.—O. sativa, var. verrucosa, *Röm. and Sch.*—O. africana, *Mill. dict.*—*Burm, afr. p.* 237, *t.* 83, *f.* 21.) 5 C. G. H. Has been cultivated in the garden here for many years, without flowering.

15. *grata*, Wall. MSS. ♄ Native place? Introduced in 1840.

16. *myrtifolia*, Wall. MSS. ♄ North-east of Bengal. Fl. small, white, C. and H. S.; fr. 0.

LINOCIERA, Swz. (*G. Don's Mill. dict.* 4, *p.* 52.)

1. *dichotoma*, Wall. (*Cat.*;—*G. Don. l. c.*—Chionanthus dichotomus,

Roxb. fl. ind. 1, *p.* 108; *ed. Carey*, 1, *p.* 107.) ♄ Coromandel. Fl. small, white. In H. C. G. fl. H. S.; fr. Aug. (*Roxb.*)

2. *ramiflora*, Wall. (*Cat.*;—*G. Don. l. c.*—Chionanthus ramiflorus, *Roxb. fl. ind.* 1, *p.* 107; *ed. Carey*, 1, *p.* 106.) ♄ Moluccas. Fl. small, yellow. In H. C. G. fl. March and April; fr. Sept. (*Roxb.*)

3. *macrophylla*, Wall. (*Cat.*;—*G. Don. o. c. p.* 53.) ♄ Silhet. Fl. small, white, inodorous, C. S.; fr. H. S.

4. *purpurea*, Vahl. (*Enum.* 1, *p.* 47;—*G. Don. l. c.*;—Chionanthus purpureus, *Lam.*—C. zeylanicus, *L. fl. zeyl. No.* 14, *sp.* 11; excl. syn.; —*Roxb. fl. ind.* 1, *p.* 107; *ed. Carey*, 1, *p.* 107.—Thouinia nutans, *L. fil. suppl. p.* 89;—*Burm. zeyl.* 31.) ♃ Ceylon. Fl. 3 lines, yellowish-whitish, inodorous, March and April; fr. 0.

Ligustrum, Tournef. (*G. Don's Mill. dict.* 4, *p.* 44.) *Privet.*

1. *japonicum*, Thunb. (*Buch. MSS.*—L. spicatum, *D. Don. fl. nep. prodr. p.* 107;—*G. Don. o. c. p.* 45.—L. nepalense, *Wall.*—*Roxb. fl. ind.*; *ed. Carey*, 1, *p.* 151; *pl. as. rar.* 3, *t.* 270;—*B. M.* 56, *t.* 2921.—L. lanceolatum, *Hb. Lamb.*) L. ♄ Japan. Mountains of Nepal. Fl. small, white, sweet-scented, C. S.; fr. 0.

Noronhia, Pet. Th. (*G. Don's Mill. dict.* 4, *p.* 49.)

1. *emarginata*, Poir. (*Hook. bot. misc.* 2, *p.* 167, *t.* 88;—*G. Don. l. c.* —N. chartacea, *Stadm. MSS.*—N. Binia, *Pet. Th.*—Olea emarginata, *Vahl. enum.* 1, *p.* 42;—*Lam. dict.* 4, *p.* 545; *ill. t.* 8, *f.* 2.) ♃ Madagascar. Grown in the gardens at Mauritius, under the name of *Ponai des Indes*.—Fruit the size of a walnut, edible. Lately introduced.

Chondrospermum, Wall. (*Cat.*—*G. Don's Mill. dict.* 4, *p.* 50.)

1. *laurifolium*, (C. smilacifolium, *Wall. Cat.*;—*G. Don. l. c.*—Ligustrum laurifolium, *Roxb. H. B. p.* 3; according to *G. Don. l. c.*—Chionanthus? smilacifolius, *Wall.*—*Roxb. fl. ind.*; *ed. Carey*, 1, *p.* 108.) ♄ ◡ Chittagong. Fl. small, pale green, scentless, April and May; fr. C. S.

2. *dentatum*, Wall. Burma.

Fraxinus, Tournef. (*G. Don's Mill. dict.* 4, *p.* 53.) *Ash.*

1. *excelsior*, L. (*G. Don. l. c.*;—*E. B.* 24, *t.* 1692.—F. apetala, *Lam. fl. fr.*; *ill. t.* 858, *f.* 1.—F. rostrata, *Guss. pl. rar. p.* 374.—F. Ornus, *Scop.*; not L.—F. erosa, *Pers.*—F. crispa, *Bosc.*) *Common Ash.* ♄ Europe. Has been introduced into H. C. G. Fl.?

2. *chinensis*, Roxb. (*fl. ind.* 1, *p.* 148; *ed. Carey*, 1, *p.* 150;—*G. Don. o. c. p.* 55.) ♄ China. Flowers small, green, H. S.; but rarely.

Ornus, Pers. (*G. Don's Mill. dict.* 4, *p.* 56.) *Manna Ash.*

1. *europæa*, Pers. (*G. Don. l. c.*—Fraxinus Ornus, *L.*;—*Sibth. and Sm. fl. gr.* 1, *t.* 4;—*Mill. fig. t.* 1;—*Lam. ill.* 9, *t.* 858, *f.* 1.—F. florifera, *Scop.*—F. botryoïdes, *Mor.*—F. vulgatior, *Segn.*—F. Ornus and paniculata, *Mill. dict. No.* 3, 4.) ♄ S. Europe. Has been introduced into H. C. G. Fl.?

2. *floribunda*, G. Don. (*Loud. hort. brit. p.* 12;—*Mill. dict. o. c. p.* 57.—Fraxinus floribunda, *Wall.*;—*Roxb. fl. ind.*; *ed. Carey*, 1, *p.* 150;—*D.*

Don. prodr. fl. nep. p. 106;—*Wall. pl. as. rar.* 3, *t.* 277.) L. ♄ Nepal. Has been cultivated in the garden here for many years, without flowering.

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* *Olea Oleaster*, Hoffmansegg, ♄ Portugal.—*O. lancea*, Vahl. ♄ Mauritius.—*O. paniculata*, R. Br. ♄ Tropical N. Holland.—*Notelæa punctata*, R. Br. ♄ Tropical N. Holland.—*N. microcarpa*, R. Br. ♄ Tropical N. Holland.—*Linociera ligustrina*, Swz. ♄ Jamaica.—*L. latifolia*, Vahl. ♄ W. Indies.—*L. compacta*, R. Br. ♄ W. Indies.—*Chionanthus axillaris*, R. Br. ♄ Tropical N. Holland.—*Ligustrum bracteolatum*, D. Don. ♄ Nepal.—*L. lucidum*, Ait.; B. M. 52, t. 2565. ♄ China.—*Syringa chinensis*, Willd. ♄ China.—*S. persica*, L.; B. M. 14, t. 486. ♄ Persia.—*Noronhia cernua*, G. Don. ♄ Mauritius.—*Pachyderma javanicum*, Bl. ♄ Java.—*Myxopyrum nervosum*, Bl. ♄ ◡ Java.—*Fraxinus Schiediana*, Schlecht. ♄ Mexico.—*F. juglandifolia*, Lam. ♄ Carolina.—*Ornus urophylla*, G. Don. ♄ Khassya Mountains.

ORDER CCXIX.—JASMINACEÆ, Lindl. Nat. Syst. p. 308.

THE JASMINE TRIBE.

Shrubs, usually twining, and 1 tree, by Lindl. referred to 3 genera. Of these, Spreng. syst. assigns 8 to New Holland and the South Sea Islands; 3 to S. Africa; 3 to Brazil and Peru; 2 to Guinea; 2 to China; 1 to Cochin China; 1 to the Azores; 1 to S. Europe; and 2 to Madeira. Wall. Cat. adds 1 Jasminum for Mauritius, and Lindl. 1 Bolivaria for Mexico. In the E. Indies have been discovered 66 species of *Jasminum*, and 1 of *Nyctanthes*. Of these about 20 have been found in the Himalayas, the Khassya Mountains, and Assam; the rest are natives of Bengal, both Peninsulas of India, Ceylon, Sunda Islands, and the Moluccas.

"Properties not very different from those of Oleaceæ, except that their oil is deliciously fragrant, and produced by the flowers, and not by the pericarp. The genuine essential oil of the shops is produced by the Jasminum officinale and grandiflorum; but a similar perfume is also procured from Jasminum Sambac." (*Lindl.*)

JASMINUM, Forsk. (*G. Don's Mill. dict.* 4, *p.* 59.)

1. *Sambac*, Ait. (*G. Don. o. c.*;—*Roxb. fl. ind.* 1, *p.* 88; *ed. Carey*, 1, *p.* 87;—*B. Reg.* 1, *t.* 1.—*J. Grah. Cat. B. pl. p.* 110.—I. undulatum, *Willd.*—Mogorium Sambac, *Lam.*—Nyctanthes Sambac, *L.*) ♄ All over India. Fl. 14 lines long, white, delightfully fragrant, H. S.; fr. R. S. *a. simplex.* (*B. Reg.* 1, *t.* 1;—*Rheed.* 6, *t.* 55.) বন মল্লিকা *Bun-Mullika. Single flowered Arabian Jasmine.* ⌒

β. *duplex*, (*Rheed.* 6, *t.* 50;—*Rumph.* 5, *t.* 30;—*Burm. zeyl. t.* 58, *f.* 2;—*B. Repos. t.* 497.) বেল *Bela. Double-flowered Arabian Jasmine.* ⌒

γ. *plenum*, (*trifoliatum*;—*Rheed.* 6, *t.* 51;—*B. M.* 43, *t.* 1785;—*Rumph.* 5, *t.* 30. *a.*) বড় বেল *Buro-Bel. Great double Arabian or Tuscan Jasmine.*—not. ⌒

2. *scandens*, Vahl. (*G. Don. l. c.*;—*Roxb. fl. ind.* 1, *p.* 89; *ed. Carey*, 1, *p.* 88.—Nyctanthes scandens, *Retz.*—Mogorium scandens, *Lam.*) L. ♄ ◡ Chittagong. Gungachara. Fl. 8 lines, white, fragrant, Jan. Feb. and March; fr. R. S. but rare.

3. *elongatum*, Vahl. (*Willd.*;—*G. Don. l. c.*;—*Roxb. fl. ind.* 1, *p.* 90; *ed. Carey*, 1, *p.* 89;—*J. Grah. Cat. B. pl. p.* 111.—Nyctanthes elongata, *L.*;—*Berg. act. angl.* 1772, *p.* 290, *t.* 11.) L. ♄ ◡ Java. Soonderbuns. Fl. largish, pure white, fragrant, March and April; fr. R. S.

4. *hirsutum*, L. (*Syst. p.* 56;—*Sm. exot. bot.* 2, *p.* 117, *t.* 118;—*B. Reg.* 1, *t.* 15;—*B. M.* 45, *t.* 1991;—*Vahl.*;—*Willd.* excl. syn. Rheed.—J. pubescens, *Willd.*;—*Vahl.*;—*G. Don. l. c.*;—*Roxb. fl. ind.* 1, *p.* 91; *ed. Carey*, 1, *p.* 90;—*J. Grah. Cat. B. pl. p.* 110.—J. multiflorum, *Andr. B. Repos.* 8, *t.* 496.—Nyctanthes hirsuta, *L. sp.* 1, *p.* 8, excl. syn.—N. pubescens, *Retz.*—N. multiflora, *Burm. ind.* 5, *t.* 3, *f.* 1. excl. syn.—*Rheed.* 6, *t.* 54.) কুন্দ *Koondo.* ♄ Coromandel. S. Concan. Bengal, (Serampore.) Monghir. Khassya Mountains. Assam. Deyra-Dhoon. Fl. 18 lines, pure white, fragrant, R. and C. S.; fr. 0.

5. *laurifolium*. Roxb. (*fl. ind.* 1, *p.* 92; *ed. Carey*, 1, *p.* 91;—*G. Don. o. c. p.* 60.—J. angustifolium, β. laurifolium, *B. Reg.* 7, *t.* 521.) ♄ ◡ Khassya Mountains. Fl. 16 lines long, white, fragrant, with a pale greenish tube, Nov. and Dec.; fr. 0.

6. *glandulosum*, Wall. (*Cat.*;—*G. Don. o. c. p.* 61.) ♄ ◡ Nepal. Has been introduced into. H. C. G. Fl.?

7. *coarctatum*, Roxb. (*fl. ind.* 1, *p.* 92; *ed. Carey*, 1, *p.* 91;—*G. Don. l. c.*) L. ♄ Chittagong. In H. C. G. fl. H. S. (*Roxb.*)

8. *trinerve*, Vahl. (*Symb.* 3, *p.* 2;—*G. Don. l. c.*;—*B. Reg.* 11, *t.* 918;—*J. Grah. Cat. B. pl. p.* 110;—not Roxb.—J. acuminatum, *Pers.*—Mogorium acuminatum, *Lam.*) ♄ ◡ Java. Fl. large, white, fragrant, H. S.; fr. 0.

9. *stenopetalum*, Lindl. (*Spreng. syst. c. p. p.* 11;—*B. Reg. vol.* 9, *app.*—J. trinerve, *Roxb. fl. ind.* 1, *p.* 93; *ed. Carey*, 1, *p.* 91;—not Vahl.) ♄ ◡ Forests of Silhet. Fl. large, white, fragrant, H. S.; fr. R. S.

10. *aristatum*, Wall. (*Cat.*) ♄ ◡ Khassya Mountains. In H. C. G.

11. *bracteatum*, Roxb. (*fl. ind.* 1, *p.* 94; *ed. Carey*, 1, *p.* 92;—*G. Don. o. c. p.* 60.) ♄ ⌒ Sumatra. Fl. 1 inch, white, fragrant, C. S.; fr. April.

12. *bifarium*, Wall. (*Cat.*—*G. Don. l. c.*) ♄ ◡ Penang. Fl. middle-sized, white, fragrant, March and April.

13. *latifolium*, Roxb. (*fl. ind.* 1, *p.* 95; *ed. Carey*, 1, *p.* 93;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 110.) ♄ ◡ Circar Mountains. Elephanta.

Kennery Jungles. The Ghauts. Mahableshwur, &c. Fl. largish, white, fragrant, March and April; fr. 0.

14. *arborescens*, Roxb. (*fl. ind.* 1, *p.* 95; *ed. Carey*, 1, *p.* 94;—*G. Don. l. c.*;—*J. Grah. Cat. B. pl. p.* 110.—Nyctanthes grandiflora, Lour.) বড় কুন্দ *Buro-Koondo.* ♄ China. Cochin China. Courtallam. Monghir. Hurdwar. Fl. large, snow-white, very fragrant, March and April; fr. 0.
15. *angustifolium*, Vahl. (*Enum.* 1, *p.* 29;—*G. Don. l. c.*;—*Roxb. fl. ind.* 1, *p.* 96; *ed. Carey*, 1, *p.* 95;—*J. Grah. Cat. B. pl. p.* 110.—J. vimineum and angustifolium, *Willd.*—J. triflorum, *Pers.*—Nyctanthes angustifolia, *L. sp. pl. ed.* 2, *p.* 18.—N. viminea, *Retz.*—N. triflora, *Burm. ind. t.* 2.—Mogorium triflorum, *Lam. ill. t.* 6;—*Rheed.* 6, *t.* 53.) ♄ ⌒ Coromandel Forests. Fl. largish, white, with a faint tinge of red, pleasantly fragrant, March, April and May, sometimes also R. S.; fr. 0.
16. *simplicifolium*, Forst. (*Prodr.* 3, *No.* 7;—*G. Don. o. c. p.* 61;—*Roxb. fl. ind.* 1, *p.* 97; *ed. Carey*, 1, *p.* 96.—*B. M.* 25, *t.* 980.—J. australe, *Pers.*) ♄ Friendly Islands. Fl. middle-sized, white, fragrant, Feb. and March; fr. 0.
17. *gracile*, Andr. (*B. Repos. t.* 127;—*R. Br. pr. p.* 521;—*B. Reg.* 8, *t.* 606;—*G. Don. l. c.*) ♄ Tropical N. Holland. Has been introduced into H. C. G. Fl.?
18. *syringæfolium*, Wall. (*Cat.*—*G. Don. o. c. p.* 62.) ♄ ⌣ Amherst. Tavoy. Fl. middle-sized, pure white, fragrant, Feb. and March; fr. 0.
19. *ligustrifolium*, Wall. MSS. (*not Lam.*) ♄ ⌣ Khassya Mountains. Fl. middle-sized, pure white, fragrant, Feb.; fr. 0.
20. *attenuatum*, Roxb. (*H. B. p.* 3;—*G. Don. l. c.*) ♄ ⌣ Silhet. Was introduced into H. C. G. in 1811, but had not fl. up to 1814.
21. *lanceæfolium*, (J. lanceolatum, *Roxb. H. B. p.* 3, not Ruiz. and Pav. nor J. lanceolaria, Roxb.) ♄ ⌣ Silhet. Was introduced into H. C. G. in 1810, but had not fl. up to 1814.
22. *auriculatum*, Vahl. (*Symb.* 3, *p.* 1;—*G. Don. l. c.*;—*Roxb. fl. ind.* 1, *p.* 98; *ed. Carey*, 1, *p.* 96;—*B. Reg.* 4, *t.* 264;—*J. Grah. Cat. B. pl. p.* 111.—J. trifoliatum, *Pers.*; not Telfair.—Mogorium trifoliatum, *Lam.*) জুঁই *Jooin.* ♄ ⌒ Mauritius. Peninsula of India. Bengal. Assam, &c. Fl. 1 inch, white, with a pale-greenish tube, very fragrant, H. and R. S.; fr. 0.
23. *azoricum*, Vahl. (*Enum.* 1, *p.* 31;—*G. Don. l. c.*;—*B. Reg.* 1, *t.* 89;—*B. M.* 44, *t.* 1889.—J. trifoliatum, *Mönch.*; not Pers.; nor Telfair.—Nyctanthes azorica, *L. sp.* 1, *p.* 9.) ♄ ⌒ Azores. Madeira. Fl. 1 inch, white, tinged on the outside with rose, fragrant, the tube pale yellowish. Lately introduced.
24. *lonchophyllum*, (J. lanceolaria, *Roxb. fl. ind.* 1, *p.* 98; *ed. Carey*, 1, *p.* 97;—*G. Don. o. c. p.* 63; not J. lanceolatum, Ruiz and Pav.; nor Roxb.) ♄ Silhet. In H. C. G. fl. R. S. (*Roxb.*)
25. *paniculatum*, Roxb. (*fl. ind.* 1, *p.* 99; *ed. Carey*, 1, *p.* 97;—*G. Don.*

l. c.;—*B. Cab.* 5, *t.* 469;—*B. Reg.* 9, *t.* 690.) ♄ China. Fl. 3 lines, white, becoming reddish yellow, as they go off. In H. C. G. fl. R. S. (*Roxb.*)

26. *dispermum*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 1, *p.* 99; *pl. as. rar.* 3, *t.* 274;—*G. Don. l. c.*) ♄ ◡ Nepal. Sirmore. Kemaon. Fl. large, white, fragrant. Has been cultivated here for several years without flowering.

27. *fruticans*, L. (*Spec.* 1, *p.* 9;—*Vahl. enum.* 1, *p.* 33;—*G. Don. l. c.*;—*B. M.* 13, *t.* 461.—J. heterophyllum, *Mönch.*; not Roxb.) ♄ S. France. Levant. Fl. 6 lines, yellow, inodorous, Feb. and March; fr. 0.

28. *odoratissimum*, L. (*Sp.* 1, *p.* 10;—*Vahl. enum.* 1, *p.* 33;—*G. Don. l. c.*;—*B. M.* 8, *t.* 285;—*J. Grah. Cat. B. pl. p.* 111.) ♄ Madeira. Fl. about 1 inch, deep yellow, somewhat fragrant. Lately introduced.

29. *heterophyllum*, Roxb. (*fl. ind.* 1, *p.* 100; *ed. Carey*, 1, *p.* 99 and 164; *Wall. pl. as. rar.* 3, *t.* 275;—*G. Don. l. c.*; not Mönch.—J. arboreum, *Buch. MSS.*) ♄ Nepal. Fl. about 6-8 lines, yellow, delightfully fragrant. Has been in the garden here more than 30 years, without flowering.

β. *macrophyllum*, Wall. Nepal. Perhaps a distinct genus.

30. *caudatum*, Wall. (*Cat.*) ♄ ◡ Khassya Mountains. Fl. largish, white, Feb. and March; fr. 0.

31. *grandiflorum*, L. (*Sp.* 1, *p.* 9;—*Vahl. enum.* 1, *p.* 34;—*G. Don. l. c.*;—*B. Reg.* 2, *p.* 91;—*Roxb. fl. ind.* 1, *p.* 100; *ed. Carey*, 1, *p.* 98;—*J. Grah. Cat. B. pl. p.* 111;—*Rheed.* 6, *t.* 52.) জাতী *Jatee. Catalonian or Spanish Jasmine.* ♄ ◡ Common in gardens all over India. Fl. $1\frac{1}{4}$ inch, white, externally suffused with purple, peculiarly fragrant, H. S.; fr. 0. The flowers are commonly used to make Durbar and Wedding garlands.

β. *plenum*. Fl. double.

32. *chrysanthemum*, Roxb. (*H. B.* (1814,) *p.* 3; *fl. ind.* 1, *p.* 99; *ed. Carey*, 1, *p.* 98.—J. revolutum, *Sims.*; *B. M.* (1815,) 42, *t.* 1731;—*B. Reg.* (1817,) 3, *t.* 178;—*G. Don. o. c. p.* 64;—*Lodd. B. Cab. t.* 966.) ♄ Patna. Mountains near Deyra-Dhoon. Sirmore. Kemaon. Fl. 1 inch, bright yellow, delightfully fragrant, April and May; fr. 0.

33. *pubigerum*, D. Don. (*Prodr. fl. nep. p.* 106;—*G. Don. l. c.*—J. Wallichianum, *Lindl. B. Reg.* 17, *t.* 1409.) ♄ Nepal. Fl. bright-yellow, smaller than those of the preceding species. Has not fl. here.

34. *approximatum*, Wall. Khassya Mountains.

35. *calycinum*, Wall. MSS. Khassya Mountains.

36. *molle*, Wall. Sirmore.

NYCTANTHES, L. (*G. Don's Mill. dict.* 4, *p.* 64.)

1. *Arbor tristis*, L. (*Spec. p.* 8;—*G. Don. l. c.*;—*B. Reg.* 5, *t.* 399;—*Roxb. fl. ind.* 1, *p.* 86; *ed. Carey*, 1, *p.* 85;—*J. Grah. Cat. B. pl. p.* 111.—Scabrita scabra, *Vahl. symb.* 2, *p.* 28.—S. triflora, *L. Mant.* 1,

p. 37.—Parilium Arbor tristis, *Gärtn. fr.* 1, *p.* 234, *t.* 51, *f.* 1.—*Rheed.* 1, *t.* 21.) শিঙ্গাহার *Singahar.* 5 Very common about the houses of the natives, all over India. Fl. 9-10 lines white, with the tube orange, exquisitely fragrant, opening at sunset, and falling off at sunrise, R. S.; fr. C. S. "The orange tubes of the flowers dye a most beautiful buff or orange colour, with the various shades between them, according to the preparation and mode of conducting the operation, but, unfortunately, no way has yet been discovered of rendering this elegant colour durable." (*Roxb.*)

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* *Jasminum quinqueflorum*, Buch. ♄ ◡ Gungachara. Patna.—*J. glabrum*, Horsf. ♄ ◡ Batavia.—*J. punctatum*, Buch. ♄ ◡ Patna.—*J. amplexicaule*, Buch. ♄ ◡ Goalpara.—*J. cuspidatum*, Willd. ♄ ◡ Neelgherries.—*J. undulatum*, Vahl.; B. Reg. 6, t. 436. ♄ ◡ China.—*J. acuminatum*, R. Br. B. Reg. 15, t. 1296. ♄ ◡ Tropical N. Holland.—*J. trifoliatum*, Telfair, Mauritius.—*J. divaricatum*, R. Br. ♄ ◡ Tropical N. Holland.—*J. humile*, L.; B. Reg. 5, t. 350. ♄ Madeira.—*J. glaucum*, Ait. ♄ ◡ C. G. H. Has been introduced at Bombay.—*J. officinale*, L.; B. M. 1, t. 31. ♄ ◡ S. Europe. Cultivated at Bombay.—*Bolivaria integrifolia*, Cham. and Schlecht. ♄ Brazil.—*B. trifida*, Cham. and Schlecht. ♄ Brazil.—*B. helianthemoides*, Lindl. ♄ Mexico.

Class 2d.

GYMNOSPERMÆ.

Lindl. Nat. Syst. p. 310.

ORDER CCXX.—GNETACEÆ, Lindl. Nat. Syst. p. 311.

Small trees or shrubs, natives of the temperate parts of Europe, Asia, and S. America, and, in the case of Gnetum, of the hottest parts of India and Guiana. (*Lindl.*) The former constitute the genus *Ephedra*, containing 6 species, one of which inhabits the Himalayas; the latter has but 3 species, two Indian, and one from Guiana.

Gnetum, L. (*Spreng. syst.* 3, *p.* 758, *No.* 3071;—*Endl. gen. pl.* 1, *p.* 263.—Gnemon, *Rumph.*—Thoa, *Aubl.*—Abutua, *Lour.*)

1. *Gnemon*, L. (*Spreng. syst.* 3, *p.* 777;—*Roxb. fl. ind.* 3, *p.* 518.—Gnemon domestica, *Rumph.* 1, *t.* 71.) ♄ Moluccas. Sumatra. Fl. small, greenish. Was introduced into H. C. G. in 1810, but has not fl. up to 1814. Strong ropes are made of the *fibres* of its bark at Sumatra, and its *leaves* are used as spinage. (*Roxb.*) The *seeds* are eaten roasted, boiled, or fried. (*Rumph.*)

2. *scandens*, Roxb. (*fl. ind.* 3, *p.* 518;—*J. Grah. Cat. B. pl. p.* 188.—Gnemon funicularis, *Rumph.* 5, *t.* 7, 8.—Thoa edulis, *Willd. sp.* 4, *p.* 477;—*Rheed.* 7, *t.* 22.) L. ♄ ⌣ Moluccas. Malabar. Lanowlee grove, near Kandalla. Ravines at Parr. Both Concans. Chittagong. Khassya Mountains. Assam. Fl. small, greenish. In H. C. G. fl. March and April; fr. Sept. and Oct. (*Roxb.*)

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* *Gnetum urens*. ♄ Guiana.

ORDER CCXXI.—CYCADACEÆ, Lindl. Nat. Syst. p. 313.

"Trees, with a simple cylindrical trunk, increasing by the development of a single terminal bud, and covered by the scaly bases of the leaves," (*Lindl.*) referred by the latter to 4 genera. Of these, Spreng. syst. enumerates 9 for S. America and the W. Indies; 1 for Florida, also found in the W. Indies; 1 for China and Japan; and 3 for New Holland.—In S. Africa have been discovered 12 species, (*Harvey*); and in the E. Indies 2 forms of *Cycas*.—Lindl. adds, that, according to R. Brown, species have also been found in Madagascar.

The only remarkable quality in the order is the production of a kind of Sago, by the soft centre of Cycas circinalis. They all abound in a mucilaginous nauseous juice. (*Lindl.*)

ZAMIA, L. (*Spreng. syst.* 3, *p.* 895, *No.* 3199;—*Endl. gen. pl.* 1, *p.* 71.)

1. *longifolia*, Jacq. (*Fragm.* 1, *p.* 28, *t.* 29;—*Spreng. syst.* 3, *p.* 908.) ♄ C. G. H. Has been cultivated in the garden here for many years, without flowering.
2. *horrida*, Jacq. (*Fragm.* 1, *p.* 27, *t.* 27, 28;—*Spreng. l. c.*;—*J. Grah. Cat. B. pl. p.* 198.) ♄ C. G. H. Like the preceding species, it has not fl. here.

CYCAS, L. (*Spreng. syst.* 3, *p.* 895, *No.* 3198;—*Endl. gen, pl.* 1, *p.* 71.)

1. *circinalis*, L. (*Spreng. syst.* 3, *p.* 907;—*Roxb. fl. ind.* 3, *p.* 744;—*B. M.* 55, *t.* 2826-7;—*J. Grah. Cat. p.* 198.—C. inermis, *Lour.*; *Spreng. l. c.*;—*Rheed.* 3, *t.* 13, 21;—*Rumph.* 1, *t.* 22 *and* 23.) ♄ Moluccas. China. Cochin-China. Fl. May; fr. Dec. and January. In gardens and plantations towards the sea-coast of the Southern provinces of Malabar, this plant is very common; it grows spontaneously from the nuts that accidentally fall. The nuts are collected, and having been dried for a month in the sun, are beaten in a mortar, and the kernels formed into a flour. This is reckoned superior to the flour obtained from the stem of the Caryota urens, L.; but is only used by the poor, who between the 14th of July and 13th of Sept. are in danger of perishing. It is prepared during the former month, and cannot be preserved longer than the end of the latter.

The Sago of the shops, formerly believed to come from the trunk of Cycas circinalis, is chiefly the product of *Sagus farinifera*. Gärtn. (*Buch.*)

2. *revoluta*, Thunb. (*Spreng. syst.* 3, *p.* 907;—*Sm. in Linn. Soc. trans.* 6, *t.* 29, 30;—*Roxb. fl. ind.* 3, *p.* 746;—*B. M.* 57, *t.* 2963-4;—*Rumph.* 1, *t.* 24.) 5 Japan. China. ♀ Common in gardens about Calcutta. Fl. H. S.; fr. C. S. "The taste of the fruit is mealy, dry and sweetish, but insipid. It is the general opinion here, that this is the Sago Palm, or the plant that produces Sago. The Japanese eat the fruits, and from the trunk extract a kind of Sago, which is highly esteemed, especially by the people of rank. On this account, the plant is much cultivated about their houses, and is forbidden to be exported. A very small quantity of the medulla or pith suffices to satisfy the hunger of a soldier in the time of war." (*B. M. l. c.*) Roxb., however, says, that he has no reason to think, that the plant, which was introduced into H. C. G. in 1794, can ever be made a useful article of diet.
3. *sphærica*, Roxb. (*fl. ind.* 3, *p.* 747.) 5 Moluccas. Fl. R. S.; fr. C. S.

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* *Zamia furfuracea*, Ait.; B. M. 45, t. 1969. 5 W. Indies.—*Z. muricata*, Humb. 5 New Granada.—*Z. integrifolia*, Ait.; B. M. 43, t. 1851. 5 W. Indies.—*Z. debilis*, Ait.; B. Cab. t. 155. 5 W. Indies.—*Z. media*, Jacq.; B. M. 43, t. 1838. 5 W. Indies.—*Z. pygmæa*, Sims.; B. M. 42, t. 1741. 5 W. Indies.—*Z. pumila*, L.; B. M. 45, t. 2006. 5 Bahama Islands.—*Cycas media*, R. Br. 5 Tropical N. Holland.—*C. angulata*, R. Br. 5 Tropical N. Holland.

ORDER CCXXII.—PINACEÆ, Lindl. Nat. Syst. p. 313.

(Coniferæ, *Juss.*)

THE FIR TRIBE.

Trees or shrubs, by Lindl. referred to 11 genera. Of these, Spreng. syst. and Roxb. fl. ind. enumerate 20 species for Europe; 20 for N. America; 8 for Mexico, and the W. Indies; 5 for the Orient; 4 for Japan; 8 for China; 2 for the South Sea Islands; 2 for Siberia; 3 for Caucasus; 3 for S. Africa; 1 for N. Africa; 1 for the Canaries; 1 for Madagascar; and 1 for Arabia. In the E. Indies have been discovered about 19-20 species, viz. 7 of *Pinus*, Himalayas, (1 from Cochin-China); 1 of *Abies*; (Himalayas); 1 of *Dammara*, (Amboyna); 1 of *Thuja*, (Himalayas?); 2-3 of *Cupressus*, (Himalayas); 1 of *Taxodium*, (Himalayas); and 5 of *Juniperus*, (Himalayas.)

"No order can be named of more universal importance to mankind than this, whether we view it with reference to its timber or its secretions.

Gigantic in size, rapid in growth, noble in aspect, robust in constitution, these trees form a considerable proportion of every wood or plantation in cultivated countries, and of every forest where nature remains in savage state. Their timber, in commerce, is known under the names of Deal, Fir, Pine, and Cedar, and is principally the wood of the Spruce, the Larch, the Scotch Fir, the Weymouth Pine, and the Virginian Cedar; but others are of at least equal, if not greater value: the Norfolk Island Pine is an immense tree, known to botanists as Araucaria excelsa; the Kawrie tree of New Zealand, or Dammara australis, attains the height of 200 feet, and yields a light compact wood, free from knots. (*Ed. Ph. Journ.* 13. 378.) But they are both surpassed by the stupendous Pines of N. W. America, one of which, P. Lambertiana, is reported to attain the height of 230 feet, and the other, Abies Douglassii, to equal, or even to exceed it. The latter is probably the most valuable of the whole for its timber." (*Lindl.*) "The terebinthinate secretion, for which the order is chiefly noted, abounds in the bark, but is also found in the wood and in the cones. *Turpentine*, containing a resina and an essential oil, is known under different names, such as Common, Venice, Strasburg, American, &c., but might also be had in any quantity from the Himalayan Pine forests. *Pitch* and *tar* have both been made from Himalayan pines, but remain still unnoticed by the commercial world. As the *seeds* of several exotic pines are eaten in the countries where they are indigenous, so, in the Himalayas, the seed of one species, Pinus Gerardiana, forms one of the principal articles of subsistence in Kunawur, as well as of considerable trade from the hills to the plains." (*Royle. ill. p.* 351-53.)

A. PINEÆ, (Abietinæ, Rich.)

PINUS, L. (*Spreng. syst.* 3, *p.* 763, *No.* 3143;—*Endl. gen. pl.* 1. *p.* 260.) *Pine.*

1. *longifolia*, Lamb. (*Pin. t.* 21. 8*vo.*;—*Spreng. syst.* 3, *p.* 887;—*Roxb. fl. ind.* 3, *p.* 651;—*Royle ill. t.* 85, *f.* 1.) L. ♄ Entrance to Nepal, in the Kheree Pass, along the Tonse and Jumna Rivers, and at elevations of 5-6000 feet within the Himalayas. Fl. C. S. In the Upper Provinces, called *Cheer* or *Surul*. Being found at the lowest elevations, and therefore most accessible from the plains, it is often employed as a substitute for English deal. The *wood* is light, and being full of resinous matter, like that of the Deodar, both are frequently employed in the hills for making torches, as pieces of other species often are in other parts of the world. The Cheer exudes, or yields to incisions, a very fine *turpentine*. This is chiefly valued by the natives for its resin, and as the latter is only obtained by exposing the turpentine to heat, the oil, the more valuable product, is dissipated to procure the resin; but by adopting a very simple still, the resin was obtained as good as ever for the purposes of the natives, while the oil of turpentine, which distilled over, was pronounced, on being sent to the General Hospital of Calcutta, "to be of very superior quality." (*Royle.*)

2. *Deodara*, Roxb. (*H. B. p.* 69; *fl. ind.* 3, *p.* 651;—*Lamb. Pin.* 8*vo. t.* 52.) দেবদারু *Debdaroo.* L. ♄ Narainhetty, in Nepal, and at Simla, Bhotea pergunnahs of Kemaon. Fl. Aug. to Oct. Sometimes thirty feet in circumference. The *wood* is particularly valued for its durability, and is therefore much used in the construction of Himalayan houses, as are also the planks of Abies Pindrow. Deodar yields a somewhat coarse, very fluid kind of *turpentine*, which is much valued in Upper India as a stimulating application to foul and indolent ulcers. The leaves and small twigs of the Deodar are likewise brought down to the plains, being much used in native medicine. (*Royle.*)

3. *sinensis*, Lamb. (*Loud. Hort. Brit. p.* 387, *No.* 23,602.—P. chinensis. *Roxb. H. B. p.* 69.) ♄ China. Introduced into H. C. G. in 1811, Fl. ?

The *Pinus sylvestris*, L.; E. B. 35, t. 2460. Europe. N. Asia;—*P. Pumilis*, Hänke.; (P. Mughus, Scop.) Austria. Hungary;—*P. Pinaster*, Ait; France, Italy; and *P. Pinea*, L.; S. Europe, have been introduced into H. C. G. but not succeeded.

CUNNINGHAMIA, R. Br. (*MSS.;—Endl. gen. pl.* 1, *p.* 260; not Schreb.)

1. *sinensis*, Rich. (*Conif. p.* 80;—*B. M.* 54, *t.* 2743;—Belis jaculifolia, *Salisb.;—Spreng. syst.* 3, *p.* 888.—Pinus lanceolata, *Lamb. pin. p.* 52, *t.* 34.—P. Abies, *Lour*, not L. and excl. most syn.) L. ♄ China. Introduced into H. C. G. Fl. ?

DAMMARA, Rumph. (*Mirb.;—Endl. gen. pl.* 1, *p.* 261.)

1. *orientalis*, Lamb. (D. alba, *Rumph.* 2, *t.* 57.—Pinus Dammara, *Lamb.;—Roxb. H. B. p.* 69.—Agathis loranthifolia. *Salisb.*) ♄ Amboyna. Introduced into H. C. G. in 1798, but had not fl. up to 1814.

ARAUCARIA, Juss. (*Endl. gen. pl.* 1, *p.* 261.)

1. *excelsa*, R. Br. (*in Hort. Kew.*—Dombeya excelsa, *Lamb. pin. t.* 39. 40.—Colymbea excelsa, *Spreng. c. p. p.* 315.) L. ♄ Tropical N. Holland. N. Caledonia. Introduced in 1840.
2. *Cunninghami.* ♄ N. Holland.

B. CUPRESSEÆ, (Cupressinæ, *Rich.*)

THUJA, Tournef. (*Spreng. syst.* 3, *p.* 763, *No.* 3148;—*Endl. gen. pl.* 1, *p.* 258.) *Arbor Vitæ.*

1. *occidentalis*, L. (*Spreng. syst.* 3, *p.* 888;—*Roxb. H. B. p.* 69.) *American Arbor Vitæ.* ♄ N. America. Siberia. Introduced into H. C. G. in 1809, but had not fl. up to 1814.
2. *orientalis*, L. (*Spreng. l. c.;—Roxb. fl. ind.* 3, *p.* 653;—*J. Grah. Cat. B. pl. p.* 198;—*Lam. ill. t.* 787, *f.* 2;—*Gärtn. fr.* 2, *p.* 61, *t.* 91, *f.* 2;—*Lour.*) *Chinese Arbor Vitæ.* ♄ China. Japan. Nepal ? Fl. H. S.; fr. R. S.
3. *sphæroïdea*, Rich. (*Spreng. syst.* 3, *p.* 889;—Cupressus thyoïdes, *L.*) ♄ N. America. Has not flowered here, though cultivated for many years.

CUPRESSUS, Tournef. (*Spreng. syst.* 3, *p.* 763, *No.* 3149;—*Endl. gen. pl.* 1, *p.* 259.) *Cypress.*

1. *sempervirens*, L. (*Spreng. syst.* 3, *p* 889;—*Gärtn. fr.* 2, *p.* 64, *t.* 91, *f.* 5;—*Roxb. fl. ind.* 3, *p.* 653.) सरू *Surus.* ♄ S. Europe. Himalayas. Fl. H. S.; fr. R. S. Leaves and berries thought by the natives to be a cure for every disease.
2. *torulosa*, Lamb. (*Spreng. syst.* 3, *p.* 889.) ♄ Bootan. Neetee. In H. C. G. ?
3. *australis*, Pers. (*Syn.* 2, *p.* 580;—*Spreng. l. c.*) ♄ N. Holland. Has been introduced into H. C. G. Fl. ?
4. *fastigiata*, Wall. MSS. ♄ Native place? Introduced in 1838. Has not fl.

PACHYLEPIS, Brongn. (*Endl. gen. pl.* 1, *p.* 259; not Less.)

1. *cupressoïdes*, Brongn. (Thuja cupressoïdes *L.*;—*Spreng. syst.* 3, *p.* 889.) ♄ C. G. H. Has not fl. here.
2. *juniperoïdes*, Brongn. (Cupressus juniperoïdes, *L.*;—Schubertia capensis, *Spreng. syst.* 3, *p.* 890.) ♄ C. G. H. Has been cultivated here for more than twelve years, without flowering.

JUNIPERUS, L. (*Spreng. syst.* 3, *p.* 895, *No.* 3200;—*Endl. gen. pl.* 1, *p.* 258.)

1. *communis*, L. (*Spreng. syst.* 3, *p.* 908;—*Gärtn. fr.* 2, *p.* 62, *t.* 91, *f.* 3;—*Blackw. t.* 187;—*Plenck. t.* 719;—*Roxb. fl. ind.* 3, *p.* 839.) *Common Juniper.* ♄ Europe. Middle Asia. Neetee Pass. Kunawar. China. Fl. C. S. *Juniper berries*, known to secrete sugar, as well as an essential oil, have long been noted for their diuretic properties, but are as famous for their employment in the manufacture of gin. They were formerly much employed in Europe, and at the present day may be bought in Indian bazars under the names of *ubhul* and *hoober*, being considered diuretic and emenagogue. They are now brought from the Himalayas, but were formerly from Kabul. (*Royle.*)
2. *chinensis*, L. (*Spreng. syst.* 3, *p.* 909;—*Roxb. fl. ind.* 3, *p.* 838.) ♄ China. Fl. C. S.
3. *aquatica*, Roxb. (*l. c.*) ♄ Rice lands near Canton, in China. Was introduced into H. C. G. in 1812. Fl. ?
4. *cernua*, Roxb. (*fl. ind.* 3, *p.* 839.) ♄ China. Has not fl. here.
5. *dimorpha*, Roxb. (*l. c.*) ♄ China. Fl. C. S.
6. *cæsia*, Roxb. (*H. B. p.* 73.) China. Introduced into H. C. G. in 1812. Fl. ?
7. *patens*, Roxb. (*H. B. p.* 73.) China. Introduced into H. C. G. in 1812. Fl. ?
8. *bermudiana*, L. (*Spreng. syst.* 3, *p.* 909.) *Bermudas Cedar.* ♄ Bermudas Islands. Cultivated here for many years, without flowering.
9. *barbadensis*, L. (*Spreng. l. c.*) *Barbadoes Cedar.* ♄ Barbadoes. Cultivated here for many years, without flowering.

10. *Sabina*, L. (*Spreng. syst.* 3, *p.* 910.) *Common Savin.* ♄ S. Europe. Siberia. Has been introduced into H. C. G. Fl. ?

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* *Pinus Massoniana*, Lamb. ♄ China.—*P. occidentalis*, Swz. L. ♄ W. Indies.—*Callitris cupressiformis*, Vent. ♄ N. Holland.—*Taxodium nuciferum*, Brongn.—(Taxus nucifera, Kämpf.; Wall. tent. fl. nep. t. 44.) ♄ Japan. Nepal.—*Cupressus glauca*, Lam. ♄ Goa Cedar. Gardens in Bombay, and the Deccan.—*Thuja articulata*, Vahl. ♄ Barbary.

ORDER CCXXIII.—TAXACÆ, Lindl. Nat. Syst. p. 316.

THE YEW TRIBE.

Trees or shrubs, by Lindl. referred to 5 genera. Of these, Spreng. syst. assigns 4 to New Holland, and the South Sea Islands; 3 to China and Japan; 4 to S. Africa; 3 to Peru; 1 to N. America, and 1 to Europe. In the East Indies have been found 7-8 species, viz. 2-3 of *Taxus*, (Himalayas); 6 of *Podocarpus*, (Nepal, Khassya Mountains, Penang, Amboyna); and 1 of *Dacrydium*, (Penang.) The seeds of Salisburia adiantifolia, Sm. and Podocarpus neriifolius, Lamb. are eatable.

Taxus, Tournef. (*Spreng. syst.* 3, *p.* 13, *No.* 2475;—*Endl. gen. pl.* 1, *p.* 261.) *Yew tree.*

1. *baccata*, L. (*Spreng. syst.* 3, *p.* 148;—*E. B.* 11, *t.* 746.) *Common Yew tree.* ♄ Europe. North and Middle Asia. Nepal. Kemaon. Introduced into H. C. G.?
2. *latifolia*, Thunb. (*Spreng. l. c.*) ♄ C. G. H. Introduced into H. C. G. Fl.?

Podocarpus, L'Herit. (*Spreng. syst.* 3, *p.* 763, *No.* 3150;—*Endl. gen. pl.* 1, *p.* 262.)

1. *polystachys*, R. Br. (*Horsf. pl. jav. rar.* 1, *p.* 40.—P. macrophylla, *Wall. Cat.* 6052. *A*; not Lamb.) ♄ Japan. China. Nepal. Khassya Mountains. Singapore. Malacca. Fl. C. S.
2. *elongatus*, L'Herit. (*Spreng. l. c.*—Taxus elongata, *Thunb.*;—*Roxb. H. B. p.* 73.) ♄ C. G. H. Has been cultivated here for many years. Fl.?
3. *chinensis*, Swt. (*Loud. Hort. Brit. p.* 388, *No.* 23648.—Taxus chinensis, *Roxb. H. B. p.* 73.) ♄ China. Fl. C. S.
4. *cupressinus*, R. Br. (*Horsf. pl. as. rar.* 1, *t.* 10. P. Horsfieldii, Wall.) ♄ Penang. Java.

Dacrydium, Soland. (*Endl. gen. pl.* 1, *p.* 262.)

1. *elatum*, Wall. (*Cat.*—Juniperus elata, *Roxb. fl. ind.* 3, *p.* 838.) L. ♄ Penang. A tree of very slow growth, cultivated in the garden here for many years, without flowering.

SALISBURIA, Sm. (*Spreng. syst.* 3, *p.* 763, *No.* 3128;—*Endl. gen. pl.* 1, *p.* 262.)

1. *adiantifolia*, Sm. (*Spreng. syst.* 3, *p.* 865;—*Roxb. H. B. p.* 68.—Ginkgo biloba, *L.*) ♄ Japan. Was introduced into H. C. G. in 1806-7, but had not fl. up to 1814. *Seeds* large and eatable.

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* *Podocarpus neriifolius*, Lamb. (Lignum Emanum, Rumph. 3, t. 26.) ♄ Amboyna.—*P. latifolius*, Wall.; pl. as. rar. 1, t. 26. ♄ Khassya Mountains.—*P. taxifolius*, Kth. ♄ N. Granada. Peru.—*P. verticillatus*, Hortul. ♄ Japan.

ORDER CCXXIV.—EQUISETACEÆ, DC.—Lindl. Nat. Syst. p. 317.

THE HORSE-TAIL TRIBE.

Leafless, branched herbs, found in ditches and rivers, comprehended under one genus. Of these, Spreng. syst. assigns 13 species to Europe, nearly all of which are likewise common to other parts of the world; 3 to S. America and the W. Indies, and 1 to N. America. His species require, however, to be thoroughly re-examined. In the E. Indies, according to Royle, have been found 3 species, natives of Nepal, Kunawur, and Silhet. One of these is also common in Bengal, Dindygul, and Burma.

"In economical purposes the Equisetum are found highly useful, for polishing furniture and household utensils; a property which is due to the presence of a great quantity of silex in the cuticle. According to the observations of John of Berlin, they contain full 13 per cent. of siliceous earth. (*Ed. P. J.* 2. 394.) The quantity of silex contained in the cuticle of Equisetum hyemale, L. (*E. B.* 13, *t.* 915,) is so great, that Sivright succeeded in removing the vegetable matter and retaining the form. (*Grev. fl. edin.* 214.) Brewster observed these siliceous particles beautifully arranged in two lines parallel to the axes of the stem. From these observations, it has been concluded, that the crystalline portions of silex and other earths found in vegetable tissues, are integral parts of the plants themselves." (*Lindl.*)

EQUISETUM, L. (*Spreng. syst.* 4, *p.* 4, *No.* 3215;—*Endl. gen. pl.* 1, *p.* 58.) *Horse-tail.*

1. *debile*, Roxb. (*H. B. p.* 75;—*Wall. Cat.*—E. pallens, *Wall. Cat.*) ♃. Dindygul. Burma. Bengal, (Serampore.) Silhet. Northern Doab. Deyra-Dhoon. Fl. R. S.

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* *Equisetum diffusum*, D. Don. (E. scoparium, Wall. Cat.) Nepal.—*E. Inglisii*, Royle. Kunawar.—*E. bogotense*, Kth. New Granada.—*E. giganteum*, Spreng. W. Indies.

CLASS 3D.

ENDOGENÆ, DC.

Lindl. Nat. Syst. p. 319.

ORDER CCXXV.—ZINGIBERACEÆ, Rich.—Lindl. Nat. Syst. p. 322.

(Scitamineæ, R. Br.)

THE GINGER TRIBE.

Aromatic herbaceous plants by Lindl. referred to 25 genera. Of these, Spreng. syst. and Loud. Hort. Brit. (new edit.) enumerate 21 species for S. America and the W. Indies; 7 for Guinea; 5 for China; 2 for Japan; 1 for Madagascar, 1 for Mauritius; and 1 for New Holland. In the E. Indies, excluding Java, which our materials do not touch, have been discovered about 156 species, viz. 14 of *Zingiber*, (4 from the Himalayas and Khassya Mountains); 32 of *Curcuma*, (1 from the Khassya Mountains); 1 of *Dischema*; 9 of *Kämpfera*; 14 of *Amomum*, (4 from the Khassya and Morung Mountains); 4 of *Elettaria*, (1 from the Khassya Mountains); 28 of *Hedychium*, (about 22 from the Himalayas and Khassya Mountains); 17 of *Alpinia*, (3 extending to the Khassya Mountains); 2 of *Hellenia*, (according to Spreng.); 5 of *Gastrochilus*, (2-3 from Assam); 3 of *Monolophus*, (2 from the Khassya Mountains); 1 of *Galanga*; 3 of *Costus*, (1 from the Himalayas); 14 of *Globba*, (4 from the Himalayas) and Khassya Mountains); 2 of *Hornstedtia*, (Retz.); and 7 of *Roscoea*, (all from the Himalayas.) The rest of the Indian species, whose native places are not mentioned, belong to Bengal, the two Peninsulas of India, Ceylon, the Sunda and Molucca Islands. Properties under the species.

A. ZINGIBEREÆ.

(Zingibera, *Bl.*; *Endl. gen. pl.* 1, *p.* 222.)

ZINGIBER, Gärtn. (*Spreng. syst.* 1, *p.* 4, *No.* 12;—*Endl. gen. pl.* 1, *p.* 222.) *Ginger.*

1. *officinale*, Roscoe. (*Scit.*;—*Spreng. o. c. p.* 12;—*Roxb. fl. ind.* 1, *p.* 47; *ed. Carey*, 1, *p.* 46;—*J. Grah. Cat. B. pl. p.* 207.—Amomum Zingiber, *L.*;—*Jacq. hort. vind.* 1, *t.* 75;—*Lour.*;—*Rheed.* 11, *t.* 12;—*Rumph.* 5, *t.* 66, *f.* 1.) আর্দ্রক *Audruk.* আদা *Ada. Commom Ginger.* 4. Universally cultivated over all the warmer parts of Asia, but where indigenous, is not known. Fl. small, whitish-purple, R. S. but very rare. Seeds seldom perfected on account of the great increase of the roots. (*Roxb. Sm.*) Extensively cultivated in the Himalyas, at the elevations even of 4-5000 feet in moist situations; in Bengal, the Bombay Presidency, &c. The root is dug up in Oct.

and Nov. in other situations in Feb. and March ; the outer rind being rubbed off by various processes, the root is dried in the sun, and then called শুঁঠ *Soontho.*

2. *Zerumbet,* Roscoe. (*Scit.* ;—*Sm. exot. bot.* 2, *t.* 112 ;—*Spreng. syst.* 1, *p.* 12 ;—*Roxb. fl. ind.* 1, *p.* 48 ; *ed. Carey,* 1, *p.* 47 ;—*J. Grah. Cat. B. pl. p.* 207.—Zingiber spurium, *Kön. in Retz. obs.* 3, *p.* 60.—Amomum Zerumbet, *Willd.* ;—*Jacq. hort. vind.* 3, *t.* 54.—A. sylvestre, *Lam.*—A. spurium, *Gmel.*—*Rheed.* 11, *t.* 13 ;—*Rumph.* 5, *t.* 64, *f.* 1.) বচ *Buch.* মহব্বরী বচ *Muhubburee-buch.* ♃. Moluccas. Cochin China. Both Peninsulas of India. Bengal, (Calcutta, Serampore.) Fl. middle-sized, pale sulphur-coloured, R. S. ; fr. Dec. and Nov. In the Moluccas the young leaves and shoots are used as greens. (*Rumph.*) *Root* employed by the natives as a stimulant stomachic. (*Royle.*)

3. *Cassumunar,* Roxb. (*fl. ind.* 1, *p.* 49 ; *ed. Carey,* 1, *p.* 48 ;—*Roscoe Scit.* ;—*Spreng. l. c.* ;—*B. M.* 35, *t.* 1426 ;—*J. Grah. Cat. B. pl. p.* 207.—Zingiber purpureum, *Roscoe in Trans. Linn. Soc.* 8, *p.* 348.—Z. Cliffordii, *Andr. B. Repos. t.* 558.—Cassumunar, *Colla.*) বন আদা *Bun-ada.* ♃. Coromandel. The Concans. Behar. Bengal, (Serampore.) Silhet. Fl. large, uniformly pale sulphur-coloured, July and Aug. ; fr. Nov. and Dec. Has a strong camphoraceous smell, and yields the true *Cassumunar* of the shops, which is employed as a stimulant stomachic. (*Roxb.*)

4. *ligulatum,* Roxb. (*fl. ind.* 1, *p.* 51 ; *ed. Carey,* 1, *p.* 50 ; *Corom.* 3, *t.* 250 ;—*Spreng. syst.* 1, *p.* 12.) ♃. Nathpur. Nepal. Fl. reddish, pale yellow, R. S. ; fr. Nov. and Dec.

5. *roseum,* Roscoe. (*Trans. Linn. Soc.* 8, *p.* 348 ;—*Roxb. fl. ind.* 1, *p.* 50 ; *ed. Carey,* 1, *p.* 49 ;—*Spreng. l. c.*—Amomum roseum, *Roxb. Corom. pl.* 2, *t.* 12.) ♃. Circars. Fl. red and yellow, R. S. ; fr. 0.

6. *pardocheilum,* Wall. Burma.

7. *rubens,* Roxb. (*fl. ind.* 1, *p.* 53 ; *ed. Carey,* 1, *p.* 51 ;—*Roscoe Scit.* ;—*Spreng. l. c.*) ♃. Rungpore District. Fl. red and yellow, R. S. ; fr. 0.

8. *squarrosum,* Roxb. (*fl. ind.* 1, *p.* 54 ; *ed. Carey,* 1, *p.* 52 ;—*Spreng. l. c.*) ♃. Rangoon. Prome. Fl. largish, pink-coloured, with the inner lip of the corol speckled with purple-red and yellow, R. S. ; fr. 0.

9. *panduratum,* Roxb. (*fl. ind.* 1, *p.* 55 ; *ed. Carey,* 1, *p.* 53 ;—*Spreng. l. c.*) ♃ Rangoon. Tavoy. Fl. smallish, red, pale-yellow, July ; fr. Nov. and Dec.

10. *chrysanthum,* Roscoe. (*Scit.*—*Spreng. syst. c. p. p.* 7.) ♃. Nepal. Fl. gold-coloured, R. S. ; fr. 0.

11. *barbatum,* Wall. (*pl. as rar.* 1, *t.* 55.) ♃. Mountains round Prome. Fl. largish, pale rose-coloured, Aug. and Sept. ; fr. 0.

12. *capitatum,* Roxb. (*fl. ind.* 1, *p.* 55 ; *ed. Carey,* 1, *p.* 54 ;—*Roscoe Scit.*—*Spreng. syst.* 1, *p.* 13.) জঙ্গলী আর্দ্রক *Junglee-adruk.* ♃. Raj-

mal. Khassya Mountains. Fl. large, pure-yellow, R. S.; fr. Sept. and Oct. Bullocks sent into the jungles to graze in the rainy season in Northern India, have a portion of the roots of this plant given to them. (*Royle.*)

13. *elatum*, Roxb. (*fl. ind.* 1, *p.* 57; *ed. Carey*, 1, *p.* 56;—*Roscoe Scit.*; —*Spreng. l. c.*) 4. Interior of Bengal. Fl. bright-yellow, July and Aug.; fr. Sept. and Oct.

CURCUMA, L. (*Spreng. syst.* 1, *p.* 4, *No.* 10;—*Endl. gen. pl.* 1, *p.* 223.) *Turmeric.*

1. *æruginosa*, Roxb. (*fl. ind.* 1, *p.* 27; *ed. Carey*, 1, *p.* 27;—*Roscoe Scit.*;—*Spreng. l. c.*) 4. Burma. Fl. crimson, tinged with yellow, the tuft bright rose-coloured, May; fr. 0.
2. *angustifolia*, Roxb. (*fl. ind.* 1, *p.* 31; *ed. Carey*, 1, *p.* 31;—*Spreng. l. c.*) *Tikur* of the Hindoos. 4. Banks of the Sona, at Nagpore. Fl. large, bright-yellow, with a purple tuft, expanding at sunrise, and decaying at sunset of the same day, July; fr. Aug. and Sept. (See under *No.* 8.)
3. *aromatica*, Salisb. (*Parad. lond.* 2, *part* 1, *f.* 96;—*Roscoe Scit.*;—*Spreng l. c.*—Curcuma Zedoaria, *Roxb. fl. ind.* 1, *p.* 23; *ed. Carey*, 1, *p.* 23;—*J. Grah. Cat. B. pl. p.* 209.) जङ्गली हलदी *Junglee-huldee.* बन हलदी *Bun-huldee. Wild Turmeric.* 4. Presidency of Bombay. Throughout the Concans. Kennery forests. Parell Hill, &c. Bengal, (Calcutta, Serampore.) China, and various other parts of Asia, and the Asiatic Islands. Fl. largish, aromatic, pale rose-coloured, with a yellow tinge along the middle of the lip, and the tuft large and rosy, H. S.; fr. June. The *roots* (*round Zedoary* of the shops) are, fresh as well as dry, of a pale-yellow colour, and possess at all times an agreeable fragrant smell, and a warm, bitterish, aromatic taste. The natives use them as a perfume, and also medicinally. (*Roxb.*)
4. *attenuata*, Wall. (*Cat.*—*J. Grah. Cat. B. pl. p.* 210.) 4. Banks of the Irawaddi. This species, nearly allied to C. angustifolia, introduced here in 1827, (*Carey,*) we have not seen.
5. *cæsia*, Roxb. (*fl. ind.* 1, *p.* 26; *ed. Carey*, 1, *p.* 26;—*Spreng. l. c.*—Tommon-itam, *Rumph.* 5, *p.* 169.) काल हलदी *Kalo-huldee.* 4. Moluccas. Bengal, (Serampore.) Fl. largish, red-yellow, with a crimsonish tuft, May; fr. 0.
6. *comosa*, Roxb. (*fl. ind.* 1, *p.* 29; *ed. Carey*, 1, *p.* 29;—*Roscoe Scit.*; —*Spreng. l. c.*—C. latifolia, *Roscoe Scit.?*) 4. Burma. Fl. yellow-rose-coloured, with a bright rosy red truft, May; fr. 0.
7. *elata*, Roxb. (*fl. ind.* 1, *p.* 25; *ed. Carey*, 1, *p.* 25;—*Roscoe Scit.*;—*Spreng. l. c.*;—*J. Grah. Cat. B. pl. p.* 209.) 4. Burma. Fl. large, white, tinged with rose and yellow, the tuft white at base, purple above, March and April; fr. 0.
8. *ferruginea*, Roxb. (*fl. ind.* 1, *p.* 27; *ed. Carey*, 1, *p.* 27;—*Roscoe Scit.*;—*Spreng. l. c.*—C. amarissima, *Roscoe Scit.*) Bengal. Fl.

large, red deep-yellow, with the tuft bright crimson, April and May; fr. 0.

9. *latifolia*, Roscoe. (*Scit.*;—*Spreng. syst. c. p. p.* 7.) ♃. Native place in India unknown. Fl. greenish-yellow, with a crimson tuft, R. S.; fr. 0. Near C. zanthorhiza.

10. *leucorrhiza*, Roxb. (*fl. ind.* 1, *p.* 30; *ed. Carey*, 1, *p.* 30;—*Roscoe Scit.*;—*Spreng. syst.* 1, *p.* 10.) ♃. Forests of Behar. Fl. rosy-yellow, with a pale rosy tuft, R. S.; fr. 0. *Tikur*, mentioned under *No.* 8 is made of the roots of this plant, at Bhaugulpore, by rubbing them on a stone or beating them in a mortar; after which they are rubbed in water with the hand and strained through a cloth, the fecula having subsided, the water is poured off, and the *Tikur* dried for use. (*Roxb.*)

11. *ornata*, Wall. Pegu. Habit of C. comosa and equally beautiful. In H. C. G. Unknown to us.

12. *rubescens*, Roxb. (*fl. ind.* 1, *p.* 28; *ed. Carey*, 1, *p.* 28;—*Roscoe Scit.*;—*Spreng. l. c.*) ♃. Bengal. Fl. small, bright-yellow-purple, fragrant, with pale-rose-coloured tuft, April and May; fr. 0. The pendulous tubers of this species, as well as of C. leucorrhiza, angustifolia and others, yield an excellent fecula or strach, which forms a good substitute for the West Indian Arrowroot, a product of Maranta arundinacea, L. It is sold in the bazars of Benares, Chittagong, and Travancore, and is eaten by the natives. A very good kind, called *Tikur*, is also made at Patna and Bhaugulpore from the tubers of Batatas edule, Choisy. (*Roxb. Royle.*)

13. *xanthorrhiza*, Roxb. (*fl. ind.* 1, *p.* 25; *ed. Carey*, 1, *p.* 25;—*Spreng. l. c.*) ♃. Amboyna. Fl. red, with the tuft large, purple or crimson, April and May; fr. 0.

14. *Zedoaria*, Roscoe. (*Scit.*;—*Spreng. o. c. p.* 10;—*B. M.* 37, *t.* 1546, excl. syn.—not Roxb.—Curcuma Zerumbet, *Roxb. fl. ind.* 1, *p.* 20; *ed. Carey*, 1, *p.* 20; *Corom.* 3, *t.* 201;—*J. Grah. Cat. B. pl. p.* 209, excl. syn. Willd. Pers. Lam. and Ainslie.—Amomum Zerumbet, *Kön.*;—*Retz. obs.* 3, *p.* 55; not Willd.—*Rheed.* 11, *t.* 7;—*Rumph.* 5, *t.* 68.) শটী *Shutee.* কাখড়া *Kakhura.* ♃. Chittagong. Fl. largish, deep-yellow, with a large white or pale straw-coloured, at the top bright crimson tuft, April; fr. 0. According to Banks, Roxburgh and Roscoe this plant yields the *Long Zedoary* of the shops. The dry *root*, powdered and mixed with the powdered wood of Cæsalpinia Sappan, L. (*Bukkum*) makes the red powder, called *Abeer* or *Shagoo*, which is copiously thrown about by the natives during the *Hooli*, or Hindoo holidays in the month of March. The root is also used medicinally amongst the natives. (*Roxb.*)

15. *Amada*, Roxb. (*fl. ind.* 1, *p.* 33; *ed. Carey*, 1, *p.* 33;—*Roscoe Scit.*;—*Spreng. l. c*;—*J. Grah. Cat. B. pl. p.* 209.—Tommon munga, *Rumph.* 5, *p.* 169,) আমাদা *Amoda.* ☉: Mango-ginger. ♃. Guzerat. The Concans.

Bengal, (Serampore.) Fl. smallish, white or pale-yellow, with a deeper yellow line running down the middle of the lip. The tuft, pale purple or rose-coloured, latter part of R. S.; fr. 0. *Root* used medicinally by the Natives.

16. *cordata*, Wall. (*pl. as. rar.* 1, *t.* 10. not Roxb.) 2. Mountains near the Irawaddi. Fl. large, yellow, with violet tuft, July and Aug.; fr. 0. Allied to C. viridiflora.

17. *grandiflora*, Wall. 2. "Native place unknown. Like *No.* 15." (*Carey's MSS.*) This plant we have not seen.

18. *longa*, Roxb. (*fl. ind.* 1, *p.* 32; *ed. Carey*, 1, *p.* 32;—*Spreng. l. c.*;—*B. Reg.* 11, *t.* 886;—*J. Grah. Cat. B. pl. p.* 209.—Amomum Curcuma, *Gmel.*;—*Jacq. hort. vind.* 3, *t.* 4;—*Rheed.* 11, *t.* 11;—*Rumph.* 5, *t.* 67.) হলদী *Huldee. Long-rooted Turmeric. Common Turmeric.* 2. Cultivated all over India, where it is much used for culinary purposes. The Javanese make an ointment with the pounded roots, and rub it all over their bodies, as a preservation against cutaneous diseases. (*Rumph.*) The Hindoos use it as a favorite application to recent wounds and bruises, leech-bites, &c. Fl. largish, whitish, with a faint tinge of yellowish, the tuft greenish-whitish, R. S.; fr. 0.

19. *montana*, Roxb. (*Corom.* 2, *t.* 151; *fl. ind.* 1, *p.* 35; *ed. Carey*, 1, *p.* 34.—*Spreng. l. c.*) 2. Circar Mountains. Fl. green, with a rose-coloured tuft; July and Aug.; fr. 0.

20. *parviflora*, Wall. (*pl. as, rar.* 1, *t.* 57;—*J. Grah. Cat. B. pl. p.* 210.) 2. Forests on the banks of the Irawaddi, near Prome. Fl. small, white, with a violet lip, and a small, white tuft, Feb.; fr. 0.

21. *petiolata*, Roxb. (*fl. ind.* 1, *p.* 37; *ed. Carey*, 1, *p.* 36;—*Roscoe Scit.*;—*Spreng. l. c.*;—*J. Grah. Cat. B. pl. p.* 210.—C. cordifolia, *Roxb. H. B. p.* 2; not cordata, Wall.) 2. Pegu. Fl. largish, deep-yellow, fragrant, with a deep purple or lilac-coloured tuft, August; fr. 0.

22. *plicata*, Wall. 2. Prome. Rangoon. Fl. largish, white, with a green tuft, R. S.; fr. 0. "Like C. Amada." (*Carey's MSS.*)

23. *reclinata*, Roxb. (*fl. ind.* 1, *p.* 36; *ed. Carey*, 1, *p.* 35;—*Spreng. l. c.*) আম্ব হলদী *Ambo-huldee.* 2. Hindoosthan. Fl. small, dull dark-pink, the lower segment of the inner limb tinged with yellow, and the tuft deeply coloured, R. S.; fr. 0.

24. *strobilina*, Wall. (*Cat.*—C. strobilina, *Wall. MSS.* in 1826;—*J. Grah. Cat. B. pl. p.* 210.) 2. Burma. Fl. unknown to me.

25. *viridiflora*, Roxb. (*fl. ind.* 1, *p.* 34; *ed. Carey*, 1, *p.* 34;—*Spreng. syst.* 1, *p.* 11;—*J. Grah. Cat. B. pl. p.* 210.—Tammon giring, *Rumph.* 5, *p.* 169.) 2. Sumatra. Fl. small, very pale-yellow, with a green tuft, July and Aug.; fr. 0.

26. *Roscoeana*, Wall. (*pl. as. rar.* 1, *t.* 9.—C. coccinea, *Wall. MSS. in* 1826, according to Carey's MSS.) 2. Pegu. Tenasserim. Fl. largish, pale-yellow, with a large, bright scarlet tuft, R. S.; fr. 0.

DISCHEMA, (Hitchinia, *Wall. in Trans. med. and phys. soc. Calcutta, vol.* 7, *part* 2, 1835; not Hitchenia (misprinted Hutchinia,) Wight. and Arn. contrib. ind. bot. London, 1834.)

1. *glaucum*, (Hitchenia glauca, *Wall. o. c. p.* 216.—Curcuma glaucophylla, *Wall. Cat.*;—*J. Grah. Cat. B. pl. p.* 210.) ♃. Hills on the banks of the Irawaddi, near Prome. Fl. large, white, and fr. from June to Sept.

KÄMPFERA, L. (*Spreng. syst.* 1, *p.* 3, *No.* 9;—*Endl. gen. pl.* 1, *p.* 223.

1. *Galanga*, L. (*Spreng. o. c. p.* 10;—*Roscoe Scit.*;—*B. M.* 22, *t.* 850;—*Roxb. fl. ind.* 1, *p.* 15; *ed. Carey*, 1, *p.* 14;—*J. Grah. Cat. B. pl. p.* 208.—Alpinia sessilis, *Kön.*;—*Retz. obs.* 3, *p.* 62.—*Rheed.* 11, *t.* 41;—*Rumph.* 5, *t.* 69, *f.* 2) চন্দ্র মূলা *Chundro-moola*. ♃. Moluccas. Cochin China. Both Peninsulas of India. Bengal. Much cultivated in gardens. Fl. large, white, the lip at base marked with two dark-purple spots separated by a broad sulphur-coloured line, R. S.; fr. C. S. *Roots* fragrant, of a somewhat warm, bitterish, aromatic taste. The natives use them both as a perfume, and medicinally. (*Roxb.*)
2. *rotunda*, L. (*Spreng. o. c. p.* 9.—*Roscoe Scit.*;—*B. M.* 23, *t.* 920.—*Roxb. fl. ind.* 1, *p.* 16; *ed. Carey*, 1, *p.* 15;—*J. Grah. Cat. B. pl. p.* 208.—K. longa, *Redout. pl. lil. t.* 49;—*Jacq. hort. schönbr.* 3, *t.* 317;—*Rheed.* 11, *t.* 9.) ভূঁই চাঁপা *Bhooim-champa*. ♃ Native place uncertain. Commonly cultivated in gardens on account of the beauty and fragrance of its large purplish-white flowers, which appear in March and April; fr. 0. *Roots* warmly aromatic.
3. *Roxburghiana*, Schult. (*suppl. mant.* 1, *p.* 33.)
4. *angustifolia*, Roxb. (*fl. ind.* 1, *p.* 17; *ed. Carey*, 1, *p.* 16;—*Roscoe Scit.*;—*Jacq.*—*Roxb.*—*Redout. lil. pl.* 7, *t.* 389;—*Spreng. syst.* 1, *p.* 10.) ♃ Bengal. মদন নির্বিষি *Mudun-nirbishi*. Hind. *Kanjonboora*. Fl. large, white, faintly purple tinged towards the apex, with the lip lilac, and at the middle dark-purple, June and July; fr. 0. *Root* used as a medicine for cattle by the Bengalees.
5. *pandurata*, Roxb. (*fl. ind.* 1, *p.* 18; *ed. Carey*, 1, *p.* 17;—*Spreng. l. c.*;—*Roscoe Scit.*;—*B. Reg.* 2, *t.* 174;—*B. Cab. t.* 587;—*J. Grah. Cat. B. pl. p.* 208.—K. ovata, *Roscoe in Linn. soc. trans.* 8, *p.* 351, *and* 11, *p.* 274.—Curcuma rotunda, *L.*—*Rheed.* 11, *t.* 10.—*Rumph.* 5, *t.* 69, *f.* 1.) ♃. Java. Sumatra. The Concans. Guzerat. Moluccas. Fl. large, whitish-pale rose-coloured, with the lip striated in the centre, and deep purple round the margin, August; fr. 0.
6. *ovalifolia*, Roxb. (*fl. ind.* 1, *p.* 19; *ed. Carey*, 1, *p.* 18; *Corom.* 3, *t.* 278;—*Roscoe Scit.*;—*Spreng. l. c.*;—*J. Grah. Cat. B. pl. p.* 208.) ♃. Peninsula of Malacca. Fl. large, white, with the lip purple its claw purple streaked, on a yellow ground, July; fr. 0.
7. *marginata*, Carey. (*Roscoe Scit.*;—*Spreng. syst. c. p. p.* 7.) ♃. Burma. Fl. large, white light-purplish, with the lip bright purple, and at the base darker shaded, June and July; fr. 0.

8. *candida*, Wall. (*pl. as. rar.* 1, *t.* 56;—*J. Grah. Cat. B. pl. p.* 208.) ♃. Martaban, near Amherst and Moulmein. Fl. large, fragrant, white, with the middle of the limb yellowish. *Root* not aromatic. Fl. the largest of the genus. (*Wall.*) Has been introduced into H. C. G.
9. *Roscoeana*, Wall. (*Cat.—B. Reg.* 14, *t.* 1212.) ♃. Mountains near Ava. Fl. large, inodorous, white, towards the base yellowish, R. S.; fr. 0.
10. *parviflora*, Wall. (*Cat.*) ♃. Banks of the Attran River. Fl. small, purplish-white, R. S.; fr. 0.

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* *Zingiber Missionis*, Wall. ♃. Travancore.—*Z. Mjoga*, Roscoe. ♃. Japan.—*Z. dubium*, Afzel. ♃. Sierra Leona.—*C. longifolia*, Roxb. ♃. Hb. Heyne.—*C. caulina*, J. Grah. ♃. Mahableshwur.—C. *Grahamiana*, (C. pseudo-montana, J. Grah.) ♃. Salsette.

B. Amomeæ.

(Amoma, *Bl.*;—*Endl. gen. pl.* 1. *p.* 223.)

Amomum, L. (*Spreng. syst.* 1, *p.* 4, *No.* 11;—*Endl. gen. pl. l. c.*)

1. *Cardamomum*, L. (*Spreng. syst.* 1, *p.* 11;—*Roxb. fl. ind.* 1, *p.* 37; *ed. Carey*, 1, *p.* 37; *Corom.* 3, *t.* 227;—Cardamomum minus, *Rumph.* 5, *t.* 65, *f.* 1.) ♃. Sumatra. Moluccas. Attran teak forests. Fl. middle-sized, pellucid, the middle lobe of the lip yellow, with two rosy lines leading up to it from the mouth of the tube. In H. C. G. fl. April. (*Roxb.*) *Seeds* agreeably aromatic, and by the Malays used for the true Malabar Cardamum. (*Roxb.*)
2. *angustifolium*, Sonner. (*It.* 2, *t.* 137;—*Lam. encycl.* 1, *p.* 132;—*Spreng. l. c.*;—*Roxb. fl. ind.* 1, *p.* 39; *ed. Carey*, 1, *p.* 38.) ♃. Madagascar. Fl. pretty large, spicy fragrant, blood-red yellow. In H. C. G. fl. at various times of the year. Every part of the plant, when bruised or wounded, diffuses a strong, but pleasant aromatic smell. (*Roxb.*)
3. *aculeatum*. Roxb. (*fl. ind.* 1, *p.* 40; *ed. Carey*, 1, *p.* 39;—*Spreng. l. c.*;—*Roscoe Scit.*) ♃. Malay Archipelago. Fl. deep orange, the lip marked with crimson spots down the middle on the inside, April and May; fr. Oct. and Nov.
4. *maximum*, Roxb. (*fl. ind.* 1, *p.* 41; *ed. Carey*, 1, *p.* 41;—*Spreng. l. c.*;—*B. Reg.* 11, *t.* 929.) ♃. Malay Islands. In H. C. G. fl. H. S.; fr. R. S. *Seeds* of a warm, pungent, aromatic taste, not unlike that of Cardamuns, but by no means so grateful. (*Roxb.*)
5. *dealbatum*, Roxb. (*fl. ind.* 1, *p.* 43; *ed. Carey*, 1, *p.* 42;—*Spreng. l. c.*) ♃. Chittagong. Silhet. Fl. large, white, with the middle of the lip yellow, March and April; fr. Sept. and Oct. *Seeds* insipid. (*Roxb.*)
6. *subulatum*, Roxb. (*fl. ind.* 1, *p.* 44; *ed. Carey*, 1, *p.* 43;—*Corom.* 3, *t.* 277;—*Spreng. l. c.*) বঙ্গালী এলাচী *Bungali-elachee*. ♃. Khassya Mountains. Fl. large, yellow, March and April; fr. R. S.

7. *aromaticum*, Roxb. (*fl. ind.* 1, *p.* 45 ; *ed. Carey*, 1, *p.* 44 ;—*Spreng. l. c.*) মোরঙ্গ এলাচী *Morung-elachee.* Morung Mountains. Fl. middle-sized, pale-yellow, the lip tinged with red down the middle, H. S. ; fr. Sept. *Seeds* spicy, by the natives used for medicinal, and other purposes. (*Roxb.*)

8. *sericeum*, Roxb. (*fl. ind.* 1, *p.* 46 ; *ed. Carey*, 1, *p.* 45 ;—*Spreng. l. c.*) ♃. Khassya Mountains. Fl. large, white, the centre of the lip variegated with pink veins on a yellow ground, R. S. (*Roxb.*)

9. *corynostachyum*, Wall. (*pl. as. rar.* 1, *t.* 58.) ♃. Teak Forests along the rivers of Martaban. Fl. large, white, with the centre of the lip yellow, R. S. Introduced in the garden here in 1810. (*Carey.*)

ELETTARIA, Rheed. (*Endl. gen. pl.* 1, *p.* 223.)

1. *Cardamomum*, White and Maton. (*Linn. soc. trans.* 10, *p.* 254.—Alpinia Cardamomum, *Roxb. fl. ind.* 1, *p.* 70 ; *ed. Carey*, 1, *p.* 68 ; *Corom. pl.* 3, *t.* 226 ;—*J. Grah. Cat. B. pl. p.* 206 ;—*Spreng. syst.* 1, *p.* 14.—Amomum repens, seu Cardamomum, *Wood.* 2, *p.* 365, *t.* 131.—A. repens, *Roscoe ;—Willd. ;—Sonner.*—A. racemosum, *Lam.*—Cardamomum minus, *Pharm. lond. and edin.*—Cardamomum, *Buch. journ. Mysore*, 2, *p.* 336, 510 ; 538, *and* 3, *p.* 225.—Elettaria, *Rheed.* 11, *t.* 4, 5.) এলাইচ *Elaïch.* এলাচী *Elachee.* ♃. Hilly parts of Malabar and Travancore. Introduced at Poway in Salsette. Cultivated about Soonda Soopa, south of Dharwar. Fl. large, pale greenish-white, with the lip marked chiefly in the centre with purple-violet stripes. Was introduced into H. C. G. in 1809, but had not fl. up to 1814. Produces the well-known *Cardamums.*

2. *punicea*, Schult. (*Mantissa.*—Alpinia punicea, *Roxb. fl. ind.* 1, *p.* 73 ; *ed. Carey*, 1, *p.* 71 :—*Spreng. syst.* 1, *p.* 15.) ♃. Sumatra. Fl. large, crimson, March and April ; fr. 0.

3. *costata*, (E ? Cardamomum medium, *Schult. Mant.*—Alpinia costata, *Roxb. Corom.* 3, *t.* 252.—A. Cardamomum medium, *Roxb. fl. ind.* 1, *p.* 74 ; *ed Carey*, 1, *p.* 72.—A. media, *Spreng. syst.* 1, *p.* 14.) ♃. Khassya Mountains. Fl. large, red, fragrant, June ; fr. Sept.

4. *linguiformis*, Schult. (*Mant.*—Alpinia linguiformis, *Roxb. Corom.* 3, *t.* 2076 ; *fl. ind.* 1, *p.* 75 ; *ed. Carey*, 1, *p.* 73 ;—*Spreng. syst.* 1, *p.* 15.) ♃. Interior of Bengal. Fl. red, with the lip yellow, and down the centre a little red, R. S. ; fr. 0.

HEDYCHIUM, Kön. (*Spreng. syst.* 1, *p.* 3, *No.* 7 ;—*Endl. gen. pl.* 1, *p.* 224.)

1. *coronarium*, Kön. (*Spreng. syst.* 1, *p.* 9 ;—*Roscoe Scit. ;—Bot. Cab.* 6, *t.* 507.—*Retz. obs.* 3, *p.* 78 ;—*Sm. exot. bot. p.* 96, *t.* 107.—*B. M.* 19, *t.* 708 ;—*B. Cab. t.* 51 ; *Lam. ill. t.* 1, *f.* 3 ;—*Roxb. fl. ind.* 1, *p.* 10 ; *ed Carey*, 1, *p.* 9 ;—*J. Grah. Cat. B. pl. p.* 205 ;—*Rumph.* 5, *t.* 69, *f.* 3.) দুলাল চাঁপা *Doolal-champa.* ♃. Moluccas. Coromandel. Penang. Tavoy. Bengal, (Serampore.) Khassya Mountains. Assam. Nepal. Fl. large, pure white, very fragrant, R. S. ; fr. C. S.

β. *lutescens*, Carey. (*Roxb. fl. ind.*; *ed. Carey*, 1, *p.* 10.)

2. *angustifolium*, Roxb. (*Spreng. l. c.*;—*Roxb. fl. ind.* 1, *p.* 13; *ed. Carey*, 1, *p.* 11;—*Roscoe Scit.*;—*J. Grah. Cat. B. pl.* 205.—H. aurantiacum, *Roscoe Scit.*;—*Roxb.* 2, 157;—*B. M.* 46, 2078.) Chittagong. Khassya Mountains. ♃. Fl. smallish, deep orange-scarlet, May and June; fr. C. S.

3. *elatum*, R. Br. (*B. Reg.* 7, *t.* 526;—*Spreng. syst.* 1, *p.* 9;—*B. C.* 9. 856;—*B. M.* 53, 3637;—*B. Cab.* 7, *t.* 693;—*Spreng. syst.* 1, *c. p. p.* 6, *No.* 19.—H. stenopetalum, *B. C.* 20, 1902?) ♃. Nepal. Fl. largish, flesh-coloured, R. S.; fr. 0.

4. *coccineum*, Buch. (*Sm. in Rees's cycl.*;—*Spreng. l. c.*;—*B. Reg.* 14, *t.* 1209;—*B. C.* 8, 705, except color of flower.—H. angustifolium, *Roxb. Corom.* 3, *t.* 252, as to the plate only, the description being that of *No.* 2.—H. angustifolium, *B. Reg.* 2, *t.* 157.—H. longifolium, *Roscoe*;—*Spreng. c. p. p.* 6, *No.* 20.) ♃. Nepal. Fl. largish, uniformly scarlet, R. S.; fr. 0.

5. *gracile*, Roxb. (*Corom.* 3, *t.* 250; *fl. ind.* 1, *p.* 14; *ed. Carey*, 1, *p.* 12;—*Spreng. l. c.*—H. glaucum, *Roscoe Scit.*;—*Spreng. syst. c. p. p.* 6, *No.* 15.—H. glaucum, *Roscoe Scit.*) ♃. Khassya Mountains. Fl. largish, white, fragrant, R. S.; fr. 0.

6. *flavum*, Roxb. (*fl. ind.* 1, *p.* 12; *ed. Carey*, 1, *p.* 81;—*Roscoe Scit.*;—*Spreng. l. c.*;—*B. Cab. t.* 604;—*B. M.* 58, *t.* 3039;—*J. Grah. Cat. B. pl. p.* 205.—H. urophyllum, *B. C.* 18. 1785.) ♃. Khassya Mountains. Fl. very large, orange-coloured, highly fragrant, R. S.; fr. 0.

7. *flavescens*, Carey. (*Roscoe Scit.*;—*B. Cab.* 8, *t.* 723;—*Spreng. syst. c. p. p.* 6, *No.* 12.—H. flavum, *B. M.* 50, *t.* 2378. not Roxb.) ♃. Nepal. Fl. large, outer limb sulphur-coloured, inner limb yellowish, fragrant, R. S.; fr. 0.

8. *speciosum*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 1, *p.* 13;—*pl. as. rar.* 3, *t.* 285;—*Roscoe Scit.*;—*Spreng. syst.* 1, *p.* 9.) ♃. Khassya Mountains. Fl. large, pale sulphur-coloured, R. S.; fr. 0.

9. *villosum*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 1, *p.* 12; not Roscoe;—*Spreng. l. c.*) ♃. Khassya Mountains. Fl. large, pale-yellow, delightfully fragrant, R. S.; fr. 0.

10. *ellipticum*, Buch. (*in Sm. Rees's cycl.*; not Roscoe Scit.;—*Spreng. l. c.*) ♃. Nepal. Fl. largé, white, R. S.; fr. 0.

11. *spicatum*, Buch. (*in Rees's cycl.*;—*Roscoe Scit.*;—*Hook. exot. fl.* 1, *t.* 46;—*B. Cab.* 7. *t.* 653;—*B. M.* 49, *t.* 2300;—*Spreng. l. c.*) ♃. Borders of fields among the hills of Upper Nepal. Fl. large, pale yellow, R. S.; fr. 0.

12. *thyrsiforme*, Buch. (*in Rees's cycl.*;—*Roscoe l. c.*;—*Spreng. l. c.*—H. heteromallum, *B. Reg.* 9, *t.* 767;—*Spreng. syst. c. p. p.* 6, *No.* 17.) ♃. Upper Nepal. Fl. largish, white, with lip yellow tinged at the base, R. S.; fr. 0.

13. *giganteum*, Wall. 4. Nepal. Allied to H. spicatum. Nearly allied to *No.* 12, but much larger. Introduced into the Garden here in 1821. Fl. ?
14. *acuminatum*, Roscoe. (*Scit.*;—*Spreng. syst. c. p. p.* 6, *No.* 16;—*B. M.* 57, *t.* 2969.) 4. Nepal. Nilgherry. Kemaon. Fl. large, pale yellow pure white, with the tube red, fragrant. Has been introduced into H. C. G. Fl. ?
15. *Gardnerianum*, Wall. (*Roscoe Scit.*;—*Spreng. l. c. No.* 18;—*B. Reg.* 9, *t.* 774.) 4. Nepal. Fl. large, reddish-yellowish-whitish, fragrant, R. S.; fr. 0.
    β. *latifolium*, Perhaps a distinct genus.
16. *gratum*, Wall. Khassya. Very near flavescens, but smaller.
17. *trilobum*, Wall, (*in Roscoe Scit.*, under H. spicatum.) 4. Nepal. Introduced in 1819.
18. *tenuiflorum*, Wall. (*in Roscoe Scit.*, under H. villosum.—H. villosum, *Roscoe*, not Wall.) 4. Nepal. Khassya Mountains. Introduced in 1821.
19. *Roscoei*, Wall. 4. Nepal. Introduced in 1821.
20. *formosum*, Wall. (H. coccineum, Buch. *l. c.* ?) 4. Nepal. Introduced 1818.
21. *fastigiatum*, Wall. (*Cat.*—H. ellipticum, *Roscoe*, not Buch.—*B. C.* 19, 1881.) 4. Nepal. Introduced in 1818.
22. *densiflorum*, Wall. (*Cat.*) 4. Nepal. Introduced in 1821.
23. *barbatum*, Wall. (*Cat.*) 4. Taong-Dong. Introduced in 1827.
24. *candidum*, Wall. (*Carey's MSS.*) 4. Nepal. Introduced in 1821. The last 8 species are unknown to us.

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* *Amomum Granum Paradisi*, L. Afzel. 4. Guinea.—*A. latifolium*, Afzel. 4. Sierra Leona.—*A. Afzelii*, Roscoe. 4. Sierra Leona.—*A. sylvestre*, Swz. 4. Jamaica.—*Hedychium squarrosum*, Herb. Buch. 4. Assam. Nepal. Kemaon.—*H. scaposum*, Nimmo. 4. S. Concan.

C. Alpiniëæ (Alpiniæ, *Bl.*—*Endl. gen. pl.* 1, *p.* 224.)

Alpinia, L. (*Spreng. syst.* 1, *p.* 4, *No.* 15;—*Endl. gen. pl.* 1, *p.* 224.)

1. *Galanga*. Swz. (*Spreng. syst.* 1, *p.* 14;—*Roscoe in Trans. Linn. soc.* 8, *p.* 345;—*Roxb. fl. ind.* 1, *p.* 59; *ed. Carey*, 1, *p.* 58;—*J. Grah. Cat. B. pl. p.* 206.—Maranta Galanga, *L.*—Amomum Galanga, *Lour.*—Galanga major, *Rumph.* 5, *t.* 63.) কুলঞ্জন *Koolunjun*. 4. Sumatra. Moluccas. Cochin China. Singapore. Penang. Chittagong. S. Concan. Silhet. Fl. largish, pale-greenish, sometimes streaked with red, somewhat fragrant, April and May; fr. Nov. Yields the *large Galangal root* of the druggists. It has a faint aromatic smell, and strong pungent taste with some bitterness. (*Roxb.*) In Cochin China it is found cultivated as well as wild, and the fresh roots are used to season fish, and for other economical purposes. (*Lour.*)
2. *Allughas*, Roscoe. (*Linn. Trans. o. c. p.* 346;—*Roxb. fl. ind.* 1, *p.* 61; *ed. Carey*, 1, *p.* 60;—*J. Grah. Cat. B. pl. p.* 206;—*Spreng. l. c.*;—Hellenia Allughas, *L.*—*B. Repos.* 8, *t.* 501.—Heretiera Allughas,

Kön.;—*Rheed.* 11, *t.* 14.) তার *Taro.* তারক *Taruko* ♃. Coromandel. S. Concan. Æstuary of Irawaddi. Bengal, (Serampore.) Silhet. Assam. Fl. large, inodorous, beautifully rose-coloured, June and July; fr. Oct. and Nov.—*Root* considerably aromatic.

3. *bracteata*, Roxb. (*fl. ind.* 1, *p.* 63; *ed. Carey*, 1, *p.* 61;—*Spreng. l. c.*; not Roscoe.—A. Roxburghii; *Sweet. hort. brit.* 2, *p.* 390.) ♃. Chappedong, on the coast of Tenasserim. Fl. white, with a crimson yellow lip, March; fr. 0.
4. *malaccensis*, Roscoe. (*Trans. Linn. soc.* 8, *p.* 345;—*Spreng. l. c.*;—*Roxb. fl. ind.* 1, *p.* 64; *ed. Carey*, 1, *p.* 62;—*B. Reg.* 4, *t.* 328.—A. petiolaris, *Soland.*—Maranta malaccensis, *Burm. ind. p.* 2.—*Willd.*—Renealmia sumatrana, *Donn. cant. ed.* 8, *p.* 2.—Galanga malaccensis, *Rumph.* 5, *t.* 71, *f.* 1.) ♃. Moluccas. Chittagong, &c. Fl. very large, pure white, with the lip orange-crimson, April and May; fr. Augt., Sept. and Oct.
5. *aurantiaca*, Wall. ♃. Singapore. Introduced in 1823.—Unknown to us.
6. *nutans*, Roscoe. (*Trans. Linn. soc.* 8, *p.* 346;—*Roxb. fl. ind.* 1, *p.* 65; *ed. Carey*, 1, *p.* 64;—*Sm. exot. bot. t.* 106;—*B. M.* 44, *t.* 1903;—*Spreng. l. c.*;—*J. Grah. Cat. B. pl. p.* 206.—A. auriculata, *Roscoe Scit.*—Renealmia nutans, *B. Repos.* 5, *t.* 360.—Zerumbet speciosum, *Jacq. fragm. t.* 68.—Costus Zerumbet, *Pers.*—Catimbium, *Juss.*—Globba nutans, *L.*—G. sylvestris, *Rumph.* 6, *t.* 62.) পুন্নাগ চাঁপা *Poonnag-champa.*—♃ Banks of the Saluen. Silhet. Coromandel. Fl. large, more or less rose-coloured, with the lip orange yellow on a dark crimson ground, April and May; fr. Sept. and Oct.
7. *mutica*, Roxb. (*fl. ind.* 1, *p.* 67; *ed. Carey*, 1, *p.* 65;—*Roscoe Scit.*; *Spreng. l. c.*) ♃. Penang. Fl. large, white, with the lip crimson yellow, and orange edged, June and July; fr. Oct. to January.
8. *calcarata*, Roscoe. (*Trans. Linn. soc.* 8, *p.* 347;—*Roxb. fl. ind.* 1, *p.* 69; *ed. Carey*, 1 *p.* 67;—*Spreng. l. c.*;—*B. Reg.* 2, *t.* 141;—*J. Grah Cat. B. pl. p.* 206, excl. syn. A. cernua, Sims.—Renealmia erecta, *Redoute pl. lil. t.* 174.—Renealmia calcarata, *Andr. B. Repos. t.* 421.) ♃. China. Fl. large, white, the lip coloured with dark purple veins on a yellow ground, March, April and May; fr. 0.
9. *Roscoeana*, Röm. and Sch. (A. bracteata, *Roscoe*; not Roxb.) ♃ China. Introduced in 1820. Unknown to us.
10. *spicata*, Roxb. (*fl. ind.* 1, *p.* 70; *ed. Carey*, 1, *p.* 68.) ♃. Sumatra. In H. G. G. fl. about the close of R. S. (*Roxb.*)
11. *porrecta*, Wall. (*Cat.*) ♃. China. Has been in the garden here for about two years, but has not fl.

GASTROCHILUS, Wall. (*Endl. gen. pl.* 1, *p.* 224. not Don.; which is Saccolabium.)

1. *pulcherrimus*, Wall. (*pl. as. rar.* 1, *t.* 24.—*Paxt. Bot. Mag.* 7, *No.* 75.) ♃. Rangoon. Fl. largish, white, pale-yellow, with the exterior part of the lip rose-coloured, R. S.

2. *longiflorus*, Wall. (*pl. as. rar.* 1, *t.* 25.) ♃. Rangoon. Fl. largish, pale-yellowish, with a rose-coloured lip.
3. *Jenkinsii*, Wall. ♃. Assam. } Hills about Gowhatti. Flowered in July
4. *affinis*, Wall. MSS. ♃. } 1838.

MONOLOPHUS, Wall. (*Cat.—Endl. gen. pl.* 1, *p.* 225.)

1. *secundus*, Wall. (Kämpfera secunda, *Wall.;—Roxb. fl. ind.; ed. Carey*, 1, *p.* 19.—Costus secundus, *Spreng. syst.* 1, *p.* 13.) ♃. Khassya Mountains.
2. *linearis*, Wall. (Kämpfera linearis, *Wall. o. c. p.* 20.—Costus linearis, *Spreng. l. c.*) ♃. Khassya Mountains. Both these species have been introduced repeatedly, but failed.

? 3. *elegans*, Wall. (*Cat.*—Kämpfera elegans, *Wall. pl. as. rar.* 1, *t.* 27. (1830.)—K. Crawfurdii, *Wall. MSS.* (1827.)—K. Crawfurdiana, *Wall.; J. Grah. Cat. B. pl. p.* 208.) ♃. Pegu. Martaban. Fl. large, white-purplish, R. S.

PHÆOMERIA, Lindl. (*Nat Syst. p.* 446, *No.* 59.)

1. *magnifica*, Lindl. (*l. c.*—Alpinia ? magnifica, *Bojer; B. M.* 59, *t.* 3192; —*Roscoe Scit.*) ♃. Mauritius. Fl. very large, deep rose-coloured. Has been introduced into H. C. G. Fl. ?

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* *Alpinia Nimmonii*, J. Grah. ♃. Lanowlee Grove near Kandalla.—*A. Neesuma*, J. Grah. ♃. Kandalla. Mahableshwur.—*A. cernua*, Sims.; B. M. 44, t. 1900. ♃. China.—*A. comosa*, Jacq. ♃. Caraccas.—*A. racemosa*, Roscoe. ♃. W. Indies.—*A. occidentalis*, Swz. ♃. Jamaica. —*A. exaltata*, Mey. ♃. Surinam.—*A. Antillarum*, Röm. and Sch. ♃. W. Indies.—*A. penicillata*, Roscoe. ♃. China.—*Hellenia coerulea*, R. Br. ♃. Tropical N. Holland.—*H. chinensis*, Willd. ♃. China.—*Monocystis abnormis*, Lindl. ♃. China.—*Peperidium tubulatum*, Lindl. (Alpinia tubulata, Ker.; B. Reg. 9, t. 777; B. M. 51, t. 2494.) ♃. Demerara.

D. COSTEÆ.

(Costi, *Bl.—Endl. gen. pl.* 1, *p.* 225.)

COSTUS, L. (*Spreng. syst.* 1, *p.* 4, *No.* 13;—*Endl. l. c.*)

1. *speciosus*, Sm. (*Spreng, syst.* 1, *p.* 13;—*Roxb. fl. ind.* 1, *p.* 59; *ed. Carey*, 1, *p.* 57.—*J. Grah. Cat. B. pl. p.* 208;—*Linn. Trans.* 1, *p.* 249.—C. arabicus *L.?*—Hellenia grandiflora, *Retz.*—Banksia speciosa, *Kön.*—Amomum hirsutum, *Lam. ill.* 1, *t.* 3.—Tsjana speciosa, *Gmel.*—Tjana-kua, *Rheed.* 11, *t.* 8.—Herba spiralis hirsuta, *Rumph.* 6, *t.* 64, *f.* 1.) কুষ্ঠ *Koost.* কেউ *Keoo.* ♃. Moluccas. Sunda Islands. Cochin-China. Ava. Ceylon. Coromandel. Kennery Forests. Salsette. Throughout the hilly, wooded parts of the Concan. Bengal, (Serampore,) &c. Fl. large, white, inodorous, R. S.; fr. Sept. and Oct. The fresh *roots* are almost insipid. The natives make a preserve of them, which they deem wholesome and nutritious. The dry root does not at all resemble the Costus arabicus of the shops. (*Roxb.*)

2. *nepalensis*, Roscoe. (*Scit.—Spreng. syst. c. p. p.* 8.—C. specious, β. angustifolius, *R. Reg.* 8, *t.* 665.) 4. Nepal. Fl. large, white, rose-coloured, R. S.
3. *argyrophyllus*, Wall. (*Cat.*) 4. Æstuary of the Irawaddi. Fl. large, rosy-white, R. S. Comes very near to C. nepalensis.

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* *Costus spicatus*, Swz. 4. W. Indies.—*C. niveus*, Meyer. Essequebo.—*C. comosus*, Roscoe. 4. S. America.—*C. spiralis*, Roscoe. 4. Caraccas.—*C. afer*, Ker.; B. Reg. 8, t. 683. 4. Sierra Leona.—*C. Pisonis*, L.; B. Reg. 11, t. 899. 4. Brazil.—*C. pictus*, D. Don. 4. Mexico.

E. Globbeæ.

(Globbæ, *Bl.; Endl. gen. pl.* 1, *p.* 222.)

Globba, L. (*Spreng. syst.* 1, *p.* 4, *No.* 16;—*Endl. l. c.*)

1. *marantina*, L. (*Spreng. syst.* 1, *p.* 15;—*Roscoe. in trans. Linn. soc.* 8, *p.* 356;—*Roxb. fl. ind.* 1, *p.* 77; *ed. Carey*, 1, *p.* 74;—*Sm. exot. bot.* 2, *t.* 103;—*J. Grah. Cat. B. pl. p.* 211.—Colebrookia bulbifera, *Roxb. in asiat. res.* 11, *p.* 356;—*Don. hort. cant.*—*B. C.* 1, *t.* 100.—Ceratanthera amomoïdes, *Horn.;—Rumph.* 5, *t.* 64, *f.* 2.) 4. Moluccas. Rangoon, &c. Fl. slender, bright yellow, fragrant, R. S.; fr. 0.
2. *orixensis*, Roxb. (*fl. ind.* 1, *p.* 78; *ed. Carey*, 1, *p.* 75; *Corom.* 3, *t.* 229;—*As. res.* 11, *p.* 358, *t.* 8;—*Spreng. l. c.*) 4. Northern Circars. Travancore. Khassya Mountains. Assam. Nepal. Fl. small, deep orange-yellow, R. S.; fr. 0.
3. *Careyana*, Roxb. (*fl. ind.* 1, *p.* 80; *ed. Carey*, 1, *p.* 77;—*Spreng. l. c.;—J. Grah. Cat. B. pl. p.* 211.—G. sessiliflora, *Sims.; B. M.* 35, *t.* 1428, excl. syn.) 4. Rangoon. Fl. small, deep orange, August; fr. 0.
4. *expansa*, Wall. (*Cat.;—J. Grah. Cat. B. pl. p.* 211.) 4. Banks of the Irawaddi and Attran. Tavoy. Fl. smallish, yellow, R. S.; fr. 0.
5. *bracteolata*, Wall. 4. Pegu. Tenasserim. Fl. smallish, yellow, R. S.; fr. 0.
6. *dubia*, Wall. 4. Shivapore. Nepal. Introduced in 1821. Unknown to us.
7. *saltatoria*, Roscoe. (*Scit.*—G. radicalis, *Roxb. Corom.* 3, *t.* 230.—G. subulata, *Roxb. fl. ind.* 1, *p.* 81; *ed. Carey*, 1, *p.* 78;—*Spreng. l. c.*—G. purpurea, *Andr. B. Repos.* 10, *t.* 615.—Mantisia saltatoria, *Sims.; B. M.* 32, *t.* 1320.) 4. Chittagong. Fl. smallish, beautifully purple, with the lip deep orange-yellow, April, May and June; fr. 0.
8. *spathulata*, Roxb. (*fl. ind.* 1, *p.* 83; *ed. Carey*, 1, *p.* 80;—*Spreng. l. c.*—Mantisia spathulata, *Wall. in Roxb. o. c. p.* 81.) 4. Khassya Mountains. Fl. smallish, azure, with the lip yellow, April; fr. 0.
9. *velutina*, Wall. Silhet.

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* *Globba bulbifera*, Roxb. 4. Northern Circars.—*G. racemosa*, Sm. 4. Nepal.—*G. versicolor*, Sm. (Exot. bot. 2, t. 117, a. b. c.—G. Hura,

Roxb.) 4. Peninsula of Malacca.—*G. pendula*, Roxb, Corom. 3, t. 228. 4. Penang.

Roscoea, Sm. (*Spreng. syst.* 1, *p.* 3, *No.* 8;—*Endl. gen. pl.* 1, *p.* 223; not Roxb.)

1. *purpurea*, Sm. (*Exot. bot.* 2, *p.* 97, *t.* 108;—*Hook. exot. fl.* 2, *t.* 144; —*Spreng. syst.* 1, *p.* 9;—*Royle. ill. t.* 89, *f.* 3.) 4. Mussooree, &c. in the Himalayas. Fl. largish, bluish-purple. Introduced in 1818, but we do not know whether it flowered.

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* *Roscoea purpurea*, β. *procera*, Wall. pl. as. rar. 3, t. 242. 4. Shivapore Mountain.—*R. capitata*, Sm.; Wall. pl. as. rar. 3, t. 255. 4. Nepal.—*R. alpina*, Royle. ill. t. 89, f. 1. 4. Simla. Choor. Landour. —*R. lutea*, Royle. ill. t. 89, f. 2. 4. Mussooree.—*R. elatior*, Sm. 4. Nepal. Kemaon.—*R. exilis*, Sm. 4. Nepal.—*R. spicata*, Sm. 4. Nepal.—*Hornstedtia Scyphus*, Retz. 4. Peninsula of Malacca.—*H. Leonurus*, Retz. 4. Peninsula of Malacca.

ORDER CCXXVI.—MARANTACEÆ, Lindl. Nat. Syst. p. 324.

THE ARROW-ROOT TRIBE.

"While the Ginger-tribe is valued for its aromatic, heating principle, this tribe is esteemed on account of the fæcula, which abounds in the rhizoma and root of both tribes, being destitute of that principle. It is, therefore, collected as a delicate article of food, from Maranta arundinacea, L., M. Alloya, Jacq., &c. in the W. Indies, and from M. ramosissima, Wall., in the East." (*Lindl.*)

Phrynium, Willd. (*Spreng. syst.* 1, *p.* 3, *No.* 5;—*Endl. gen. pl.* 1, *p.* 226.)

1. *spicatum*, Roxb. (*fl. ind.* 1, *p.* 5; *ed. Carey*, 1, *p.* 5;—*Roscoe Scit.*; —*Spreng. syst.* 1, *p.* 8.) 4 Pegu. Fl. small, whitish, April and May; fr. 0.
2. *imbricatum*, Roxb. (*fl. ind.* 1, *p.* 6; *ed. Carey*, 1, *p.* 6;—*Spreng. l. c.*) 4. Chittagong. Fl. small, pale rose-coloured, March and April; fr. August.
3. *parviflorum*, Roxb. (*fl. ind.* 1, *p.* 7; *ed. Carey*, 1, *p.* 7;—*Roscoe Scit.*; —*Spreng. l. c.*) 4. Khassya Mountains. Assam. Fl. very small, yellow, R. S.; fr. C. S.
4. *capitatum*, Willd. (*Spreng. l. c.*;—*Roxb. fl. ind.* 1, *p.* 8; *ed. Carey*, 1, *p.* 7;—*J. Grah. Cat. B. pl. p.* 212.—Phyllodes placentaria, *Lour.*—*Rheed.* 11, *t.* 34.) 4. Cochin China. Chittagong. Silhet. Assam. Fl.

small, in the morning rose-coloured, becoming purple by the evening, R. S.; fr. C. S. In Cochin China eatables are rolled up in the leaves and so boiled, to give them colour, and a grateful flavour. (*Lour.*)

5. *macrostachyum*, Wall. (*Cat.*) ♃. Rangoon. Tavoy. Introduced in 1827. Unknown to us.

6. *setosum*, Roscoe. (*Scit.*) Brazil.

7. *cylindricum*, Roscoe. (*Scit.*) Brazil.

MARANTA, L. (*Spreng. syst.* 1, *p.* 3, *No.* 3;—*Endl. gen. pl.* 1, *p.* 226.) *Arrow root.*

1. *arundinacea*, L. (*Spreng. syst.* 1, *p.* 8;—*Roscoe Scit.*;—*Redouté Lil.* 57;—*B. M.* 49, *t.* 2307.—M. arundinacea, Cannacori folio, *Plum. gen.* 16.—*Mart. Cent.* 39, *t.* 39.—Canna indica, radice alba alexipharmaca, *Sloane. hist.* 1, *p.* 253, *t.* 149.) *Indian Arrow Root.* ♃. Tropical S. America. Cultivated in the W. and E. Indies. Fl. middle-sized, pure white, R. S.; fr. 0. The common Arrow-root is prepared from the roots by maceration in water in the same manner as starch is made from wheat, potatoes, and other farinaceous substances. (*Sims.*)

2. *ramosissima*, Wall. (*pl. as. rar.* 3, *t.* 286;—*J. Grah. Cat. B. pl. p.* 212.) ♃. Silhet. Fl. somewhat larger than *No.* 1, pure white, R. S. The tuberous roots yield an abundance of Arrow-root.

3. *dichotoma*, Wall. (*Cat.*—Phrynium dichotomum, *Roxb. fl. ind.* 1, *p.* 2; *ed. Carey*, 1, *p.* 2;—*J. Grah. Cat. B. pl. p.* 212;—*Spreng. syst.* 1, *p.* 8.—Thalia cannæformis,—*Horst. pr. No.* 3.—Donax Arundastrum, *Lour.*;—*Rumph.* 4, *t.* 7.) মুক্ত পাতী *Mookto-patee.* পাতী পাতী *Patee-patee.* ♃. Moluccas. Cochin China. Siam. New Hebrides. Coromandel. Bengal, Silhet. Assam. Fl. largish, pure white, H. S.; fr. July and August. শীতল পাটী *Seetul-patee*, ↄ: Mats made of the split stems of this plant, being smooth and particularly cool and refreshing, are well known every where in India.

4. *virgata*, Wall. (*Cat.*—Phrynium virgatum, *Roxb. fl. ind.* 1, *p.* 4; *ed. Carey*, 1, *p.* 4;—*Spreng. l. c.*) ♃. Mountains between Travancore and Tinnevelly. Courtallum. Fl. smallish, pure white, the two longest of the inner segments yellow-margined, R. S.; fr. C. S.

5. *bicolor*, Ker. (*B. Reg.* 10, *t.* 786;—*Spreng. syst. c. p. p.* 5.—*B. Cab.* 10. 921.) ♃. Brazil. Has been cultivated in the garden here for many years, without flowering.

CALATHEA, G. F. W. Meyer. (*Spreng. syst.* 1, *p.* 3, *No.* 2;—*Endl. gen. pl.* 1, *p.* 227.)

1. *zebrina*, Lindl. (Maranta Zebrina, *Sims.*; *B. M.* 44, *t.* 1926;—*B. Reg.* 5, *t.* 385;—*J. Grah. Cat. B. pl. p.* 212.—Phrynium zebrinum, *Roscoe Scit.*) ♃. Brazil. Fl. large, beautifully purple. Was introduced in 1824, but we do not know, whether it flowered. Has also been introduced into H. C. G. Fl.?

2. *flavescens*, Lindl. (*B. Reg.* 11, *t.* 932;—*Spreng. syst. c. p. p.* 5.) ♃. Rio Janeiro. Introduced in 1841.

CANNA, L. (*Spreng. syst.* 1, *p.* 3, *No.* 1;—*Endl. gen. pl.* 1, *p.* 227.) *Indian Shot.*

1. *Lamberti,* Lindl. (*B. Reg.* 6, *t.* 470;—*Spreng. syst.* 1, *p.* 7, and *p.* 9.—C. indica, *Ruiz and Pav.;* not L.) ♃. Peru. Introduced in 1841.
2. *patens,* Roscoe. (*Scit.;—Spreng. l. c.* and *p.* 9;—*B. Reg.* 7, *t.* 576.)—C. indica β. patens, *Ait.*—C. indica, *Curt. B. M.* 13, *t.* 454, not L. and excl. syn.) ♃. St. Helena? Fl. large, calyx pale-green; exterior limb of the corol in three yellow-greenish segments; upper lip of the interior limb deep red, lower lip yellow with red spots, R. S.
3. *coccinea,* Roscoe. (*Scit.;—Spreng. syst. l. c.*—C. indica γ. coccinea, *Willd.*—C. rubra (indica γ. coccinea,) *Willd.*—C. speciosa, major, *Hegetschweiler Com. bot. t.* 1, *f.* 7.) ♃. S. America. Fl. large; calyx pale-red; outer limb of the corol flesh-coloured; upper lip of the inner limb scarlet, lower lip yellow with scarlet spots. H. and R. S.; fr. C. S.
4. *lutea,* Roscoe. (*Spreng. l. c.* and *p.* 9;—*B. M.* 46, *t.* 2085;—*J. Grah. Cat. B. pl. p.* 211, excl. syn. B. Reg.—C. indica, β. lutea, *Ait.*) ♃. S. America? Fl. large, yellow, with large brownish-rush-coloured spots, R. S.
5. *gigantea,* Redouté. (*Lil.* 331;—*B. Reg.* 3, *t.* 206;—*B. M.* 49, *t.* 2316;—*Spreng. l. c.* under C. patens.—C. latifolia, *Roscoe;—Spreng. o. c. p.* 9;—*J. Grah. Cat. B. pl. p.* 211.) ♃. S. America. Fl. very large, scarlet, C. S.
6. *polymorpha,* Lodd. (*Bot. Cab.*) ♃. S. America. Has been introduced into the garden here. Not known to us.
7. *limbata,* Roscoe. (*Scit.;—B. Reg.* 10, *t.* 771;—*Spreng. syst.* 1, *p.* 9.—C. auro-vittata, *Lodd. B. Cab.*) ♃. Brazil. Fl. large; calyx pale-green; outer limb of corol pale-yellow; upper lip of the inner limb bright scarlet with orange margins; lower lip red-spotted, Feb. and March.
8. *speciosa,* Roscoe. (*B. M.* 49, *t.* 2317;—*B. Reg.* 15, *t.* 1276;—*J. Grah. Cat. B. pl. p.* 211;—*Spreng. syst.* 1, *p.* 9.—C. nepalensis, *Wall. Cat.;—J. Grah. o. c. p.* 212.) ♃. Nepal. Fl. large; calyx bright-red; outer limb of the corol deep-red; upper lip of the inner limb bright-red with yellow claws; lower lip yellow at base, red towards apex, nearly the whole year; fr. C. S.
9. *indica,* L. (*Roxb. fl. ind.* 1, *p.* 1; *ed. Carey,* 1, *p.* 1;—*J. Grah. Cat. B. pl. p.* 211; excl. syn. Ait., Roscoe, B. Cab., B. Reg., and B. M.—C. orientalis, *Roscoe Scit.*—C. chinensis, *Willd.;—Rheed.* 11, *t.* 43; *Rumph.* 5, *t.* 71, *f.* 2.) লাল সর্ব জয়া *Lal-surbo-juya.* ♃. Common all over India. Fl. large, bright scarlet, and fr. nearly throughout the year.

   β. *flava,* Roxb. (*l. c.*—C. orientalis, β. flava, *Roscoe Scit.*) শ্বেত সর্ব জয়া *Shwet-surbo-juya.* Fl. pale-yellow. Equally common with *a.*

10. *denudata*, Roscoe. (*Scit.*;—*Spreng. syst. c. p. p.* 5.) 4. Brazil. Introduced in 1821. Unknown to us.
11. *pallida*, Roscoe. (*Scit.*;—*Spreng. syst. c. p. p.* 5.) 4. Barbadoes. Fl. large, pale-yellow, with orange spots, nearly throughout the year; fr. C. S.
12. *pedunculata*, Roscoe. (*Scit.*;—*Spreng. syst.* 1, *p.* 9, excl. syn. Willd. and *c. p. p.* 5;—*B. M.* 49, *t.* 2323.) 4. Brazil? Fl. large, orange-coloured, C. S.
13. *flaccida*, Roscoe. (*Scit.*;—*Spreng. syst.* 1, *p.* 7, and *p.* 9;—*J. Grah. Cat. B. pl. p.* 211;—C. Reevesii. *Lindl. B. R.* 23, 2004;—*Salisb. icon. t.* 2.) 4. S. Carolina. Georgia. Fl. large, pale-yellow, C. S.
14. *glauca*, L. (*Roscoe Scit.*;—*Sm. exot. bot.* 2, *t.* 102;—*Spreng. l. c.* and *p.* 9;—*Roxb. H. B. p.* 1;—*J. Grah. Cat. B. pl. p.* 211.) 4. S. America. Africa? Fl. large, uniformly sulphur-coloured, nearly throughout the year; fr. C. S.
15. *iridiflora*, Ruiz. and Pav. (*Spreng. syst. l. c.* and *p.* 9;—*B. M.* 45, *t.* 1968;—*B. Reg.* 8, *t.* 609.) 4. Peru. Fl. very large, crimson. Has been introduced into H. C. G. Fl.?
16. *discolor*, Lindl. (*B. Reg.* 15, *t.* 1231.) 4. Trinidad. Fl. large; calyx rose-coloured; outer limb of the corol yellowish dull red; upper lip of the inner limb deep scarlet, inner limb pale yellowish-red. Introduced in 1841.

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* *Myrosma cannæfolia*, L. fil. 4. Surinam.—*M. comosa*, Spreng. 4. Surinam.—*Phrynium grandiflorum*, Roscoe. 4. Brazil.—*S. Parkeri*, Roscoe. 4. Granada.—*P. Casupo*, Roscoe. 4. S. America.—*S. ellipticum*, Roscoe. 4. Guiana.—*S. setosum*, Roscoe. 4. Rio Janeiro.—*Thalia dealbata*, Roscoe. 4. B. M. 41, t. 1690, 4. Carolina.—*T. geniculata*, Roscoe. 4. W. Indies.—*Maranta indica*, Tuss. 4. W. Indies.—*M. Tonchat*, Aubl. S. Guiana.—*M. lutea*, Jacq. 4. Caraccas.—*M. Alloya*, Jacq. 4. S. America.—*M. obliqua*, Rudg. 4. Guiana.—*M. gracilis*, Rudg. 4. Guiana.—*M. gibba*, Sm. 4. Barbadoes.—*M. sylvatica*, Roscoe. 4. Barbadoes.—*M. angustifolia*, Sims.; B. M. 50, t. 2398. 4. Peru.—*M. furcata*, Mart. S. Brazil.—*M. cristata*, Mart. 4. Brazil.—*M. spicata*, Aubl. S. Guiana. Brazil.—*Calathea violacea*, Lindl. B. Reg. 12, t. 961. 4. Brazil.—*C. longibracteata*, Lindl.; B. Reg. 12, t. 1020. 4. Brazil.—*C. grandifolia*, Lindl.; B. Reg. 14, t. 1210. 4. Rio Janeiro.—*C. macilenta*, Lindl. 4. Rio Janeiro.—*Canna edulis*, Ker. B. Reg. 9, t. 775. 4. Peru.—*C. lagunensis*, Lindl.; B. Reg. 16, t. 1311. 4. Mexico.—*C. Achiras*, Lindl.; B. Reg. 16, t. 1358. 4. Mendoza.

ORDER CCXXVII.—MUSACEÆ, Agardh.—Lindl. Nat. Syst. p. 326.

THE BANANA TRIBE.

Stemless plants, or nearly so, by Lindl. referred to 4 genera. Of these, Spreng. syst. and Loud. Hort. Brit. new edit. enumerate 12 species for S. America, and the West Indies; 10 for S. Africa; 2 for China; 1 for Madagascar; and 1 for Mauritius.—In the E. Indies have been discovered 12 species of *Musa;* and 1 of *Heliconia;*—all except Musa nepalensis, natives of Tropical India.—*Plantains* are well known to every-body.

A. HELICONIËÆ, A. Rich. (*Endl. gen. pl. p.* 228.)

HELICONIA, L. (*Spreng syst.* 1, *p.* 524, *No.* 956;—*Endl. gen. pl. p.* 228.)

1. *buccinata,* Roxb. (*fl. ind.* 1, *p.* 670; *ed. Carey,* 2, *p.* 494;—*Spreng. syst. c. p. p.* 109;—*J. Grah. Cat. B. pl. p.* 213.—H. indica, *Lam.;* partly.—Folium buccinatum, *Rumph.* 5, *t.* 62, *f.* 2.) ♃. Moluccas. Fl. largish, pale-yellow, H. S. (*Roxb.*) In the garden here it has not fl. during the last 12 years.
2. *brasiliensis,* Hook. (*Exot. fl. t.* 190;—*Spreng. syst. c. p. p.* 109.) ♃. Brazil. Introduced in 1841.
3. *bicolor,* Benth. ♃. Brazil.

B. RAVENALËÆ.

(Uraniëæ, *Rich.; Endl. gen. pl. p.* 228.)

STRELITZIA, Banks. (*Spreng. syst.* 1, *p.* 524, *No.* 955;—*Endl. l. c.*)

1. *ovata,* Dryand. (*Spreng. syst.* 1, *p.* 833.—B. Reginæ, *Curt. B. M.* 3, *t.* 119, 20, not Ait.) ♃. C. G. H. Fl. very large, bright orange, with a beautifully azure nectary, C. S.; fr. 0.
2. *juncea,* Lk. (S. parvifolia, *Dryand.* β. juncea, *B. Reg.* 6, *t.* 516.) ♃. C. G. H. Fl. very large, orange-coloured, with the nectary bluish-purple, Oct.; fr. 0.

MUSA, Tournef. (*Spreng. syst.* 1, *p.* 524, *No.* 954;—*Endl. gen. pl.* 1, *p.* 228.) *Plantain Tree.*

1. *paradisiaca,* L. (*Spreng. syst.* 1, *p.* 833.—M. paradisiaca, β. sapientum, *Bertol.*—M. sapientum, *Roxb. fl. ind.* 1, *p.* 663; *ed. Carey,* 2, *p.* 484; *Corom.* 3, *t.* 275;—*J. Grah. Cat. B. pl. p.* 212.—*Rheed.* 1, *t.* 12, 13, 14;—*Rumph.* 1, *t.* 60.) কলা *Kula. Cultivated Plantain.* রাম কলা *Ram-Kula. Wild Plantain.* Fl. large, yellowish-whitish, and fr. throughout the year. A native of the E. Indies, cultivated every where within the Tropics. The numerous varieties we have in vain tried to put into some order. The attempt made for this purpose, in Schult. tom. 8, p. 1289-92, appears to us only to have increased the confusion.
2. *rosacea,* Jacq. (*Hort. Schönbr.* 4, *t.* 445;—*Spreng. l. c. and c. p. p.* 109;—*B. Cab. t.* 615;—*B. Reg.* 9, *t.* 706, *A. B.*—M. ornata. *Roxb. fl. ind.* 1, *p.* 666; *ed. Carey,* 2, *p.* 488.) ♃. Chittagong, &c.

Cultivated at the Mauritius. Fl. large, purple yellow-white, and fr. nearly the whole year.

3. *superba*, Roxb. (*fl. ind.* 1, *p.* 667; *ed. Carey*, 2, *p.* 489; *Corom.* 3, *t.* 223;—*Spreng. o. c. p.* 833.) 4. Dindygul. Fl. large, pale-coloured, R. S.; fr. C. S.

4. *nepalensis*, Wall. (*Roxb. fl. ind.; ed. Carey*, 2, *p.* 492;—*Spreng. syst. c. p. p.* 109, under M. glauca.—*Schult.* 8. *p.* 1295.) 4. Smaller Mountains of Nepal, in dense shady forests. Fl. large, yellowish. Has been cultivated for years in the garden here, without flowering. The Nepalese eat the fruit, though it contains little else than hard seeds. (*Wall.*)

5. *glauca*, Roxb. (*fl. ind.* 1, *p.* 669; *ed. Carey*, 2, *p.* 490;—*Spreng. syst.* 1, *p.* 833.) 4 Pegu. Fl. like those of *No.* 1, May; fr. Oct. and Nov.

6. *textilis*, Nees.—(*Schult.* 8, *p.* 1297;—*Roxb. H. B. p.* 19.—Musa seminifera, var. 1. *Lour.*) *Manilla Hemp.* 4. Philippines. Has been cultivated for many years in the garden here, without flowering. The *leaves* yield a most valuable flax, from which some of the finest muslins are prepared.

7. *coccinea*, Andr. (*B. Repos.* 1, *t.* 47;—*B. M.* 38, *t.* 1559;—*Red. lil. t.* 307-8;—*Spreng. syst.* 1, *p.* 833;—*Roxb. fl. ind.* 1, *p.* 665; *ed. Carey*, 2, *p.* 487.) 4. China. Fl. large, scarlet, yellow-tipped, and fr. nearly the whole year. (*Roxb.*)

8. *rubra*, Wall. (not Hortul.) 4. In H. C. G.—Banks of the Irawaddi.?

9. *chinensis*, Swt. (M. Cavendishii, *Paxt. Bot. Mag.* 3, 51.) 4. China. In H. C. G.

RAVENALA, Adans. (*Endl. Nov. gen.* 1, *p.* 228.) *Traveller's tree.*

1. *madagascariensis*, Sonner. (*voy.* 2, *p.* 223, *t.* 124-126;—*Poir. enc. meth.* 6, *p.* 80.—*Jacq. hort. schönbr.* 1, *t.* 93.—*Schult.* 8, *p.* 1299.—Urania speciosa, *Willd.*;—*Spreng. syst.* 2, *p.* 115.;—*Roxb. fl. ind.* 2, *p.* 114.—U. Madagascariensis, *Raüschel.*) ♄ Madagascar. Fl. large, white, inodorous, Sept. and Oct.; fr. May, June and July. While in blossom the spathes are all completely filled with clear gelatinous matter.

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* *Heliconia Bihai*, Swz. 4. W. Indies.—*H. caribea*, Lam. 4. W. Indies.—*H. Ballia.* Rich. 4. Maranhao.—*H. humilis*, Jacq. 4. Caraccas.—*H. psittacorum*, Willd. 4. W. Indies.—*H. Swartziana*, Röm. and Sch. (H. psittacorum, β. B. M. 14, t. 502.) 4. Jamaica.—*H. hirsuta*, Röm. and Sch. 4. S. America.—*H. pulverulenta*, Lindl.; B. Reg. 19, t. 1648. S. America.—*Strelitzia augusta*, Thunb. 4. C. G. H.—*S. reginæ*, Ait. 4. C. G. H.—*S. humilis*, Lk. 4. C. G. H.—*S. farinosa*, Ait. 4. C. G. H.—*Musa maculata*, Jacq. 4. Mauritius.—*M. Berteroniana*, Colla. 4. Moluccas.—*M. Balbisiana*, Colla. 4. Amboyna.—*M. acuminata*, Colla. 4. Amboyna.

ORDER CCXXVIII.—AMARYLLACEÆ, (AMARYLLIDACEÆ, Lindl. Nat. Syst. p. 328.)

THE NARCISSUS TRIBE.

Bulbous, sometimes fibrous-rooted herbs, occasionally with a tall, cylindrical woody stem, by Lindl. referred to 67 genera. A very few are found in N. Europe, or the same parallel. These are plants of the genera Narcissus and Galanthus. As we proceed south, they increase. Pancratium appears on the shores of the Mediterranean; Crinum, in the E. Indies; Hymenocallis in the W. Indies. Hæmanthus is found for the first time with some Crinums on the Gold Coast. Hippeastra show themselves in countless numbers in Brazil, and across the whole Continent of S. America; and finally, at the Cape of Good Hope the maximum of the order is beheld in all the beauty of Hæmanthus, Crinum, Clivia, Cyrtanthus, and Brunswigia. A few are found in New Holland, the most remarkable of which is Doryanthes (*Lindl.*) The E. Indian Amaryllaceæ amount, according to our materials to 25 species, viz. 8 of of *Curculigo;* 1 of *Hypoxis;* 4 of *Pancratium;* 11 of *Crinum;* and 1 of *Eurycles.*

"One of the few monocotyledonous orders in which any poisonous properties are found. These are principally apparent in the viscid juice of the bulbs of Hæmanthus toxicarius, and some neighbouring species, in which the Hottentots are said to dip their arrow-heads. The bulbs of Narcissus poeticus have for ages been known as emetic; and it has recently been shewn that a similar power exists in Narcissus Tazetta, odorus, and Pseudonarcissus, as well as in Pancratium maritimum. DC. considers the principle found in Amaryllidaceæ analogous to that of the Squill." (*Lindl.*)

A. HYPOXIDEÆ, *R. Br.;—Endl. gen. pl.* 1, *p.* 173.

CURCULIGO, Gärtn. (*Spreng. syst.* 2, *p.* 6, *No.* 1207;—*Herb. amaryll. p.* 83;—*Endl. gen. pl.* 1, *p.* 173.—Molineria, *Herb. o. c. p.* 84.)

1. *orchioïdes*, Gärtn. (*fr.* 1, *p.* 63, *t.* 16, *f.* 11;—*Roxb. Corom.* 1, *t.* 13; *fl. ind.* 2, *p.* 144;—*J. Grah. Cat. B. pl. p.* 215;—*Spreng. syst.* 2, *p.* 60;—*Herb. o. c. p.* 83;—*B. M.* 27, *t.* 1076;—*Rheed.* 12, *t.* 59;—*Rumph.* 6, *t.* 54, *f.* 1.) তাল লুড়া *Tal-loora.* ♃. Moluccas. Coromandel. Concans. Bengal, (Serampore.) Silhet. Assam. Kemaon. Fl. smallish, yellow, more or less throughout the year.

2. *plicata*, Dryand. (*Spreng. l. c.;—Herb. l. c.*—Hypoxis plicata, *Thunb.*—Gethyllis plicata, *Jacq. hort. schönbr.* 1, *t.* 88.) ♃. C. G. H.

β. *glabra* (*B. Reg.* 4, *t.* 345.—Forbesia plicata, *Ecklon. topogr.*) ♃. C. G. H. Fl. smallish, yellow. Introduced in 1841.

3. *recurvata*, Dryand. (*Spreng. l. c.;—Roxb. fl. ind.* 2, *p.* 145;—*B. Reg.* 9, *t.* 770.—Molineria recurvata, *Herb. o. c. p.* 83.) ♃. Coromandel. Silhet. Nepal. Fl. 9 lines in diameter, yellow, R. S.; fr. C. S.

4. *sumatrana*, Roxb. (*fl. ind.* 2, *p.* 146;—*B. Cab. t.* 443.—Molineria sumatrana, *Herb. l. c.*;—*Rumph.* 6, *t.* 53.) 4. Moluccas. Sumatra. Penang. Fl. like those of *No.* 3, March and April; fr. 0.

HYPOXIS, L. (*Spreng. syst.* 2. *p.* 6, *No.* 1206;—*Herb. amaryll. p.* 84;—*Endl. gen. pl.* 1, *p.* 174.)

1. *ovata*, Thunb. (*Spreng. o. c. p.* 59;—*Herb. l. c.*;—*B. M.* 25, *t.* 1010.) 4. C. G. H. Fl. 9 lines in diameter, externally green, internally yellow, June; fr. 0.
2. *stellata*, L. (*Spreng. l. c.*;—*Herb. l. c.*;—*B. M.* 18, *t.* 662;—*Jacq. ic. rar.* 2, *t.* 368;—*B. Repos. t.* 101.—Fabricia stellata, *Thunb.*—Amaryllis capensis, *L. sp. pl. p.* 420.) 4. C. G. H. Fl. very large, beautiful, scentless, yellow, with a dark-brown spot at the base of each petal, May and June; fr. 0.
3. *linearis*, Andr. (*B. Rep. t.* 171;—*Spreng. l. c.*;—*Herb. l. c.*) 4. C. G. H. Introduced in 1841.
4. *obtusa*, Burch. (*Spreng. o. c. p.* 60;—*B. Reg.* 2, *t.* 159;—*Herb. l. c.*) 4. C. G. H. Fl. middle-sized, bright yellow, inodorous, May and June.
5. *aquatica*, L. (*Spreng. l. c.*;—*Herb. l. c.*) 4. C. G. H. Introduced in 1841.

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* *Curculigo latifolia*, Dryand;—B. M. 46, t. 2034;—B. Reg. 9, t. 754. 4. Moluccas.—C. *graminifolia*, Nimmo. 4. Kandalla.—*C. ensifolia*, R. Br. 4. Tropical N. Holland.—*Hypoxis minor*, Don.; Royle. ill. t. 91, f. 3. (H. curculigoïdes, Wall. Cat.) 4. Himalayas.—*H. serrata*, L. B. M. 19, t. 709. 4. C. G. H.—*H. erecta*, L.; B. M. 19, t. 710. 4. C. G. H.—*H. elegans*, Andr. (H. stellata, β. B. M. 30, t. 1223) 4. C. G. H.—*H. stellipilis*, Ker.;—B. Reg. 8, t. 663;—B. M. 65, t. 3696. 4. C. G. H.—*H. marginata*, R. Br. 4. Tropical N. Holland.

B. AMARYLLEÆ, *Endl. gen. pl.* 1, *p.* 174.

LEUCOJUM, L. (*Spreng. syst.* 2, *p.* 5, *No.* 1197.;—*Endl. gen. pl.* 1, *p.* 175.;—*Herb. amaryll. p.* 332.) *Snow-flake.*

1. *æstivum*, L. (*Spreng. o. c. p.* 49;—*Herb. l. c.*;—*E. B.* 9, *t.* 621;—*B. M.* 30, *t.* 1210;—*Roxb. H. B. p.* 23.) 4. England. S. Europe. Fl. middle-sized, white, with a green spot beneath the tip of each segment, slightly fragrant when smelled closely. H. S.; fr. 0.
2. *vernum*, L. (*Spreng. l. c.*;—*Herb. l. c.*;—*B. M.* 2, *t.* 46.) 4. Germany. Italy. Introduced in 1819. Fl.?
3. *pulchellum*, Salisb. (*Parad. lond. t.* 21.) 4. Native Country? Introduced in 1811. Fl.?
4. *trichophyllum*, Brot. (*Spreng. l. c.*;—*B. Reg.* 7, *t.* 544.—Acis trichophyllus, *Sweet.*) 4. Portugal. Barbary. Introduced in 1819. Fl.?
5. *autumnale*, L. (*Spreng. syst. l. c.*;—*B. M.* 24, *t.* 960.—Acis autumnalis, *Salisb.*) 4. S. Europe. Introduced in 1811. Fl.?

IMHOFIA, Herb. (*Amaryll. p.* 290,)

1. *filifolia,* Herb. (*o. c. t.* 29, *f.* 8.—Strumaria filifolia, *Jacq. ic. rar.* 2, *t.* 14;—*Spreng. syst.* 2, *p.* 57;—*B. Reg.* 6, *t.* 440.—Leucojum strumosum, *Jacq. ic. rar. t.* 361; as to the plate, not the text.) 4. C. G. H. Fl. middle-sized, white, lined with red. Introduced in 1814.

STERNBERGIA, Waldst. and Kit. (*Spreng. syst,* 2, *p.* 6, *No.* 1202;—*Endl. gen. pl.* 1, *p.* 175.)

1. *lutea,* Ker. (*Spreng. o. c. p.* 57.—Amaryllis lutea, *L.; B. M.* 9, *t.* 290.) 4. Spain. Sicily. Greece. Fl. large, yellow. Introduced in 1808. Fl. ?

HAYLOCKIA, Herb. (*Endl. gen. pl.* 1, *p.* 175.)

1. *pusilla,* Herb. (*B. Reg.* 16, *t.* 1371.) 4. Buenos Ayres. Fl. largish, pale sulphur, externally purplish spotted, internally purple streaked. Introduced in 1841. Has not fl. yet.

COOPERIA, Herb. (*Amaryll. p.* 178;—*Endl. gen. pl.* 1, *p.* 176.)

1. *Drummondiana,* Herb. (*o. c. t.* 24, *f.* 2, 5-11, *t.* 41, *f.* 16.—C. Drummondi, *Herb.;—B. Reg.* 22, *t.* 1835.) 4. Texas. Fl. middle-sized, white, underneath red lined, with a $4\frac{1}{2}$ inches long red, streaked tube. Introduced in 1841.

ZEPHYRANTHES, Herb. (*Amaryll. p.* 170;—*Endl gen. pl.* 1, *p.* 176, under Amaryllis.)

1. *mesochloa,* Herb. (*l. c.;—B. Reg.* 16, *t.* 1361.) 4. Buenos Ayres. Fl. large, half green, above white, stained with red on the outside, inodorous, R. S.; fr. C. S.
2. *Atamasco,* Herb. (*o. c. p.* 171.—Amaryllis Atamasco, *L.; Spreng. syst.* 2, *p.* 49, excl. c. p. p. 132;—*Roxb. H. B. p.* 24;—*B. M.* 7, *t.* 239;—*B. Cab. t.* 1899;—*Catesb. car.* 3, *t.* 12.) 4. Carolina. Fl. large, white, in the bud outside bright red. Introduced into H. C. G. in 1798, but had not fl. up to 1814. In the garden here it has not fl.
3. *tubispatha,* Herb. (*l. c.*—Amaryllis tubispatha, *B. M.* 38, *t.* 1586, not L'Herit.) 4. Blue Mountains, Jamaica. Fl. large, white, green below, inodorous, and fr. R. S.
4. *carinata,* Herb. (*o. c. p.* 173;—*B. M.* 52, *t.* 2594.—Z. grandiflora, *B. Reg.* 11, *t.* 902, as to the flower, but not the leaves and seeds.) 4. Mexico. Fl. large, bright rose-coloured, inodorous, and fr. R. S.
5. *rosea,* Lindl. Herb. (*l. c.;—B. Reg.* 10, *t.* 821;—*B. M.* 52, *t.* 2537.) 4. Mountains of Cuba. Fl. much smaller than *No.* 4, deep rose-coloured, inodorous, and fr. R. S.
6. *sessilis,* Herb. (*o. c. p.* 175.)
   - α. *verecunda,* Herb. (*l. c.*—Z. verecunda, *Herb.*—*B. M.* 52, *t.* 2583; —*J. Grah Cat. B. pl. p.* 215.) 4. Mexico, Fl. small white, tinged with bluish outside, inodorous, and fr. R. S.
   - β. *striata,* Herb. (*l. c.*—Z. striata, *Herb.;—B. M. t.* 2593.) 4. Mexico. Fl. small, streaked with red outside, inodorous, and fr. R. S.

7. *candida*, Herb. (*o. c. p.* 176 ;—*B. M.* 53, *t.* 2607.—Amaryllis candida, *Ker.* ;—*B. Reg.* 9, *t.* 724 ;—*Spreng. syst.* 2, *t.* 49, not c. p.) 4. Peru. Buenos Ayres. Fl. largish, white, with a green tube, and a purplish spathe, inodorous, and fr. R. S.

HABRANTHUS, Herb. (*Amaryll. p.* 156 ;—*Endl. gen. pl.* 1, *p.* 176, under Amaryllis.)

1. *spathaceus*, Herb. (*o. c. p.* 160.)

β. *angustus*, Herb. (*l. c.*—H. angustus, *Herb.*—*B. M.* 53, *t.* 2639.) 4. Buenos Ayres. Fl. large, deep rose-coloured, inodorous, R. S.

2. *bifidus*, Herb. (*o. c. p.* 160 ;—*B. M.* 52, *t.* 2597.) 4. Buenos Ayres. Fl. 2 inches long, purplish red, darker and lined with green underneath, R. S.

3. *hesperius*, Herb. (*o. c. p.* 161.)

a. *advena*, Herb. (*l. c.*—Amaryllis advena, *Ker.* ;—*Spreng. syst.* 2, *p.* 53 ; *B. M.* 28, *t.* 1125 ;—*B. Reg.* 10, *t.* 849.) 4. Chili. Fl. large, red upwards, yellowish green below, inodorous, March ; fr. 0.

4. *gracilifolius*, Herb. (*o. c. p.* 165 ;—*B. M.* 51, *t.* 2464.) 4. Maldonado, S. America. Fl. largish, pale reddish-purple, with a green tube, inodorous, R. S. ; fr. 0.

5. *versicolor*, Herb. (*o. c. p.* 166 ;—*B. M.* 51, *t.* 2485.) 4. Maldonado, S. America. Fl. 2 inches, at first rosy, afterwards white, tinged with rose, inodorous, R. S. ; fr. 0.

6. *robustus*, Swt. (*Brit. fl. gard.* 2, *t.* 14 ;—*Herb. l. c.* ;—*B. Cab. t.* 1761. —Amaryllis tubispatha, *L'Herit, sert. angl.* 9, not A. Berterii, Spreng. syst. 2, p. 49.) 4. Buenos Ayres. Fl. $3\frac{1}{2}$ inches, purplish pink, fading to white, inodorous, R. S. ; fr. 0.

7. *Andersonianus*, Herb. (*o. c. p.* 167.—H. Andersonii, *Herb.* ;—*B. Reg.* 16, *t.* 1345 ;—*B. Cab. t.* 1677.) 4. Monte Video. Fl. largish, golden or copper coloured, with external brownish streaks, and a brownish-reddish bottom, R. S. ; fr. 0.

SPREKELIA, Heist. (*Herb. amaryll. p.* 133 ;—*Endl. gen. pl.* 1, *p.* 176, under Amaryllis.)

1. *formosissima*, Herb. (*l. c.*—Amaryllis formosissima, *L.* ; *Spreng. syst.* 2, *p.* 50 ;—*B. M.* 2, *t.* 47 ;—*Roxb. H. B. p.* 24 ;—*J. Grah. Cat. B. pl. p.* 215.) *Jacobean Lily*. 4. S. America. Fl. very large, crimson, inodorous, H. and R. S. ; fr. 0.

2. *Dalhousieæ*, Wall. 4. Perfectly white. Brazil.

HIPPEASTRUM, Herb. (*Amaryll. p.* 135 ;—*Endl. gen. pl. p.* 176, under Amaryllis.)

1. *aulicum*, Herb. (*l. c.* ;—*B. M.* 61, *t.* 3311.—Amaryllis aulica, *Ker.* ; *B. Reg.* 6, *t.* 444 ;—*Spreng. syst.* 2, *p.* 50.) 4. Rio Janeiro. Fl. very large, crimson, with the mouth of the tube green, inodorous, H. S.

β. *platypetalum*. (Amaryllis aulica, var. platypetala, *Lindl.* ; *B. Reg.* 12, *t*, 1038.) 4. Rio Janeiro, more robust, with broader petals.

γ. *glaucophyllum.* (Amaryllis aulica, var. platypetala, glaucophylla, *Hook.*;—*B. M.* 57, *t.* 2983.) 4. Rio Janeiro. Leaves glaucous.

2. *calyptratum,* Herb. (*o. c. p.* 136.—Amaryllis calyptrata, *Ker.*;—*B. Reg.* 2, *t.* 164;—*Spreng. syst.* 2, *p.* 50.) 4. Brazil. Fl. large, green tinged with faint red. Has not fl. here within our experience.

3. *psittacinum,* Herb. (*l. c.*;—*B. M.* 63, *t.* 3528.—Amaryllis psittacina, *Ker.*;—*B. Reg.* 3, *t.* 199;—*Spreng. syst.* 2, *p.* 50;—*J. Grah. Cat. B. pl. p.* 215.) 4. Brazil. Fl. large, green, streaked and margined with bright red, R. S.; fr. 0.

4. *solandræflorum,* Herb. (*l. c.*;—*B. M.* 66, *t.* 3771.—Amaryllis solandræflora, *Lindl. coll. t.* 11;—*Spreng. syst.* 2, *p.* 51.) 4. Guiana. Fl. very large, green and yellowish-white, inodorous, H. and R. S.

β. *striatum,* Herb. (*l. c.*;—*B. M.* 52, *t.* 2573.) 4. Brazil. Fl. faintly streaked externally with red.

γ. *conspicuum,* Herb. (*l. c.*—Amaryllis solandræflora, β. vittata. *B. Reg.* 11, *t.* 876.) 4. Fl. $10\frac{1}{2}$ inches long, on the outside faintly red, streaked, with the tube purple red, inodorous, and fr. R. S.

5. *ambiguum,* Herb. (*l. c.*)

α. *longiflorum,* Herb. (*B. M.* 64, *t.* 3542.) 4. Lima. Has been introduced into H. C. G. and, no doubt, flowered.

6. *vittatum,* Herb. (*o. c. p.* 137.—Amaryllis vittata, *L'Herit*;—*B. M.* 4, *t.* 129;—*Spreng. syst.* 2, *p.* 51;—*Roxb. H. B. p.* 24.) 4. Lima. Fl. very large, doubly striped with dull red, March and April.

7. *reticulatum,* Herb. (*l. c.*—Amaryllis reticulata, *L'Herit*;—*Spreng. syst.* 2, *p.* 53;—*B. M.* 18, *t.* 657.) 4. Brazil. Fl. very large, purplish red, reticulated with a deeper colour, star white, March.

β. *striatifolium,* Herb. (*l. c.*—Amaryllis reticulata, β;—*B. Reg.* 5, *t.* 352.—A. reticulata, β. striatifolia, *Sims.*; *B. M.* 47, *t.* 2113.) 4. Brazil. Fl. larger, paler.

8. *barbatum,* Herb. (*o. c. p.* 138, *t.* 21, *f.* 1.—Crinum barbatum, *L. MSS.*—Amaryllis dubia, *L. amœn.* 8, 254, excl. syn.) 4. Surinam. Fl. large, tube green, limb with a green star. Fl. ?

9. *equestre,* Herb. (*o. c. p.* 138.—Amaryllis equestris, *Jacq.*;—*Spreng. syst.* 2, *p.* 50, excl. syn;—*Roxb. H. B. p.* 24.) *Barbadoes Lily*).

α. *minus,* Herb. (Amaryllis equestris, *B. M.* 9, *t.* 305;—*J. Grah. Cat. B. pl. p.* 215, excl. A. dubia, L.—Belladonna, *Merian. surinam. t.* 22.) 4. Surinam. Fl. large, bright scarlet, with a green star, H. and R. S.; fr. R. S.

β. *majus,* Herb. (*l. c.*—Amaryllis equestris, β. major, *B. Reg.* 3, *t.* 234.) 4. Demerara. Fl. much larger, H. and R. S.

γ. *semiplenum,* Herb. (*l. c.*) 4. Havannah. Bahama. Fl. half-double, H. and R. S.

10. *stylosum,* Herb. (*o. c. p.* 139;—*B. M.* 49, *t.* 2278.—Amaryllis maranensis, *Ker.*;—*Spreng. syst.* 2, *p.* 50;—*B. Reg.* 9, *t.* 719.) 4. Maran-

ham. Fl. large, of a dull coppery flesh colour, with a greenish tube, H. and R. S.

11. *miniatum*, Herb. (*o. c. p.* 403, *t.* 47, *f.* 5.—Amaryllis miniata, *Ruiz. and Pav.*;—*Spreng. syst.* 2, 50, excl. c. p. p. 133.) ♃. Peru. Fl. large, miniated, the tube with six fimbriated white scales at the mouth. Introduced in 1819. Fl.?

12. *Reginæ*, Herb. (*B. M.* 49, app.—H. regium, *Herb. amaryll. p.* 139.—Amaryllis Reginæ, *L.*; *Spreng. syst.* 2, *p.* 50, excl. c. p. p. 133;—*B. M.* 13, *t.* 453;—*Roxb. H. B. p.* 24;—*J. Grah. Cat. B. pl. p.* 215.) ♃. Mexico. Fl. large, scarlet, with a green star, H. and R. S.

13. *bulbulosum*, Herb. (*Amaryll. p.* 139.)

α. subbarbatum, Herb. (*l. c.*—H. subbarbatum, *Herb.*—*B. M.* 51, *t.* 2475.) ♃. Rio Janeiro. Fl. large, bright scarlet, with a greenish sulphur-coloured star, H. and R. S.

β. rutilum, Herb. (*o. c. p.* 140.—Amaryllis rutila, *Ker.*; *B. Reg.* 1, *t.* 23;—*Spreng. syst.* 2, *p.* 51.) ♃. Brazil. Fl. smaller, brilliant, tending to scarlet, H. and R. S.

γ. fulgidum, Herb. (*l. c.*—Amaryllis fulgida, *Ker.*;—*B. Reg.* 3, *t.* 226;—*Spreng. syst.* 2, *p.* 51.) ♃. Brazil. Fl. larger, paler, R. S.

δ. pallidum, Herb. (*l. c.*) ♃. Brazil? Fl. like those of γ, but much paler, H. and R. S.

ε. Simsianum, Herb. (*l. c.*—Amaryllis miniata, *Sims.*; *B. M.* 45, *t.* 1943; not Ruiz and Pav.) ♃. Brazil. Fl. large, red-lead-coloured, H. and R. S.

ζ. acuminatum, Herb. (*l. c.*—Amaryllis acuminata, *Ker.*; *B. Reg.* 7. *t.* 534;—*Spreng. syst.* 2, *p.* 53.—A. acuminata, β. longipedunculata *Lindl.*; *B. Reg.* 14, *t.* 1188.) ♃. Rio Janeiro. Fl. large, pale red with a green sulphur-coloured star, undulate, acuminate, H. and R. S.

η. pulverulentum, Herb. (*l. c.*;—*B. M.* 49, *t.* 2273.) ♃. Rio Janeiro, Fl. large, darker, less acuminate, H. and R. S.

θ. ignescens, Herb. (*o. c. p.* 141.) ♃. Rio Janeiro? Fl. smaller, fiery orange, H. and R. S.

ι. crocatum, Herb. (*l. c.*—Amaryllis crocata, *Ker.*; *B. Reg.* 1, *t.* 38;—*Spreng. syst.* 2, *p.* 53.) ♃. Brazil. Fl. smaller, and more undulate, than those of γ H. and R. S.

The *hybrid or mixed Crosses of Hippeastrum*, the names of which may be found in Herbert's Amaryllideæ, p. 144, but which it appears tedious and useless to enumerate, amount, in the garden here, to 74, nearly all presented to the late Dr. Carey by the Hon'ble and Rev. Mr. Herbert, and appearing in all their beauty during the hot and the first part of the rainy season.

Vallota, Herb. (*Amaryll. p.* 133;—*Endl. gen. pl.* 1, *p.* 176, under Amaryllis.)

1. *purpurea*, Herb. (*o. c. p.* 134.)

α. *major*, Herb. (Amaryllis purpurea, *Ait.*;—*Spreng. syst.* 2, *p.* 51; *B. M.* 35, *t.* 1430.—A. elata, *Jacq. hort. schönbr.* 1, *p.* 32, *t.* 62.—A. speciosa, *L'Herit.*) 4. C. G. H. Fl. three inches long, of a deep uniform red colour; the outer segments greenish down the centre of their back; throat connected by 6 paler coloured subtransparent membranes. Introduced in 1819. Again introduced in March, in 1841, but has not fl. yet.

β. *minor*, Herb. (Amaryllis purpurea, *B. Reg.* 7, *t.* 552.) 4. C. G. H. Fl. smaller, paler. Introduced with α.

Amaryllis, Herb. (*Amaryll. p.* 275.—Belladonna, *Sweet*;—*Endl. gen. pl.* 1, *p.* 176, under Amaryllis.)

1. *Belladonna*, L. (*Spreng. syst.* 2, *p.* 51;—*Herb. l. c.*;—*B. M.* 19, *t.* 733;—*Roxb. H. B. p.* 24;—*J. Grah. Cat. B. pl. p.* 215.) 4. C. G. H. Fl. large, fragrant, the lower part greenish-white, upper suffused with rose colour or pale carmine, and veined. Introduced in 1808, and again in March 1841, but has not fl.

β. *pallida*, Herb. (*B. Reg.* 9, *t.* 714;—*Spreng. l. c.*—Amaryllis pallida, *Red. lil.* 479.) 4. C. G. H. Fl. like those of α. but paler. Introduced in 1821, again in March, 1841, but has not fl. yet.

2. *blanda*, Ker. (*Herb. o. c. p.* 277;—*B. M.* 35, *t.* 1450;—*Spreng. o. c. p.* 51.) 4. C. G. H. Fl. 4 inches, white, fading to a blush or pale rose-colour. Introduced in 1821. Again in March, 1841, but has not fl. yet.

3. *Josephinæ*, Red. (*Lil.* 3, 370-372;—*Spreng. syst.* 2, *p.* 54.—A. Josephiniana, *Herb. o. c. p.* 278.)

β. *subestriata*, Herb. (*l. c.*—Brunsvigia Josephinæ, γ. *B. M.* 52, *t.* 2578.) 4. C. G. H. Fl. nearly 4 inches, purplish-red, R. S.; but very rarely.

γ. *Griffiniana*, Herb. (*l. c.*—Brunsvigia Josephinæ, β. angustifolia, *B. Reg.* 3, *t.* 192-93.) 4. C. G. H. Introduced in 1820. Again introduced in March, 1841, but has not fl. yet.

4. *grandiflora*, Herb. (*o. c. p.* 278; Brunsvigia grandiflora, Lindl.; *B. Reg.* 16, *t.* 1335.) 4. C. G. H. Fl. large, flesh-coloured. Introduced in 1841.

Brunsvigia, Ker. (*Herb. amaryll. p.* 280; *Endl. gen. pl.* 1, *p.* 176-77.)

1. *multiflora*, Heist. (*Herb. l. c.*;—*B. M.* 39, *t.* 1619, excl. syn. Redoute.—Amaryllis orientalis, *L.*; *Spreng syst*, 2, *p.* 53.) 4. C. G. H. Fl. more than 2 inches long, bright scarlet, R. S.

2. *minor*, Herb. (*o. c. p.* 281;—*Lind.*; *B. Reg.* 11, *t.* 954.) 4. C. G. H. Introduced in 1841.

Lycoris, Herb. (*Amaryll. p.* 229;—*Endl. gen. pl.* 1, *p.* 176, under Amaryllis.)

1. *aurea*, Herb. (*l. c.*—Amaryllis aurea, *Ait.*;—*B. M.* 12, *t.* 409;—*B. Reg.* 8, *t.* 611;—*Spreng. syst.* 2, *p.* 53;—*Roxb. fl. ind.* 2, *p.* 140;—

Jacq. hort. schönb. 1, 38, t. 73.) 4. China. Fl. large, yellow, Augt. and Sept.; fr. 0.

2. *radiata*, Herb. (*l. c.*—Amaryllis radiata, *Ait.*;—*Spreng. syst.* 2, *p.* 53;—*B. Repos. t.* 95;—*B. Reg.* 7, *t.* 596;—*Roxb. fl. ind.* 2, *p.* 140.) 4. Japan. Fl. large, crimson, Augt. and Sept.; fr. 0.

NERINE, Herb. (*Amaryll. p.* 283;—*Endl. gen. pl.* 1, *p.* 176, under Amaryllis.)

1. *curvifolia*, Herb. (*l. c.*—Amaryllis curvifolia, *Jacq. hort. schönbr.* 1, *p.* 83, *t.* 64;—*B. M.* 19, *t.* 725;—*Spreng. syst.* 2, *p.* 52.) 4. C. G. H. Fl. large, crimson. Introduced in 1819. Fl.? Again in March, 1841, but has not fl. yet.

2. *corusca*, Herb. (*l. c.*—Amaryllis corusca, *Ker.*—A. humilis, β. *B. M.* 27, *t.* 1089.) 4. C. G. H. Fl. large, deep orange scarletish, pale underneath. Introduced in 1819. Again in March, 1841, but has not fl. yet.

3. *venusta*, Herb. (*l. c.*—Amaryllis venusta, *Ker.*;—*B. M.* 27, *t.* 1090.) 4. C. G. H. Fl. large, poppy coloured. Introduced in 1819. Again in March, 1841, but has not fl. yet.

β. *sarniensis*, Herb. (*l. c.*—N. sarniensis, *Herb. B. M.* 1849, app.—Amaryllis sarniensis, L. *fil.*;—*Spreng. syst.* 2, *p.* 52;—*B. M.* 9, *t.* 294;—*Roxb. H. B. p.* 24.) *Guernsey Lily.* 4. Japan, whence by a shipwreck some roots were cast on the Island of Guernsey. Here they remained for some years, and afterwards the flowers appeared in all their beauty. Fl. large, crimson. Has been cultivated for many years in the garden here, without flowering.

γ. *rosea*, Herb. (*l. c.*—N. rosea, *Herb.*;—*B. M.* 47, *t.* 2124.) 4. C. G. H. Fl. large, deep rose-coloured. Introduced in 1819. Fl.?

4. *flexuosa*, Herb. (*l. c.*—Amaryllis flexuosa, *Jacq. hort. schönbr.* 1, *p.* 35, *t.* 67;—*Spreng. syst.* 2, *p.* 53;—*B. Reg.* 2, *t.* 172.) 4. C. G. H. Fl. largish, rose-coloured. Introduced in 1819. Fl.?

5. *pulchella*, Herb. (*l. c.*;—*B. M.* 50, *t.* 2407.—Amaryllis pulchella, *Spreng. syst.* 2, *p.* 53.) 4. C. G. H. Fl. largish, pale rose-coloured. Introduced in 1819. Again in March, 1841, but has not fl. yet.

6. *lucida*, Burch. (*Herb. l. c. t.* 26, *f.* 3;—*B. M.* 47, *t.* 2124, annot.—Amaryllis laticoma, *Ker.*;—*B. Reg.* 6, *t.* 497.) 4. C. G. H. Introduced in 1825. Fl.?

7. *humilis*, Herb. (*l. c.*—Amaryllis humilis, *Ker.*; *B. M.* 19, *t.* 726;—*Jacq. hort. schönbr.* 1, *p.* 36, *t.* 69.) 4. C. G. H. Fl. largish, more or less deep rose-coloured. Introduced in 1819. Fl.?

8. *undulata*, Herb. (*l. c.*—Amaryllis undulata, *Jacq.*;—*Spreng. syst.* 2, *p.* 53;—*B. M.* 11, *t.* 369.) 4. C. G. H. Fl. largish, deep rose-coloured. Introduced in 1820. Again in March, 1841, but has not fl. yet.

9. *versicolor*, Herb. (*B. M.* 49, *app. p.* 51.) 4. A hybrid, raised from Nerine undulata, impregnated by N. curvifolia. Fl. largish, rose-

coloured, changing to bluish-purple, except the middle vein, which continues red. Introduced in 1821. Fl. ?

BUPHONE, Herb. (*Amaryll. p.* 239;—*Endl. gen. pl.* 1, *p.* 177, under Brunsvigia.)

1. *toxicaria*, Herb. (*l. c.*—Hæmanthus toxicarius, *Ait.*;—*B. M.* 30, *t.* 1217.—Brunsvigia toxicaria, *Ker.*; *B. Reg.* 7, *t.* 567.—Amaryllis disticha,—*L. Spreng. syst.* 2, *p.* 52.) ♃. C. G. H. Fl. smallish, pale rose-coloured, R. S.

2. *ciliaris*, Herb. (*o. c. p.* 240.—Brunsvigia ciliaris, *Ker.*; *B. Reg.* 14, *t.* 1153.—Hæmanthus ciliaris, *Thunb.*—Amaryllis ciliaris, *L.*) ♃. C. G. H. Fl. small, dull purple, R. S. but rare.

AMMOCHARIS, Herb. (*Amaryll. p.* 241;—*Endl. gen. pl.* 1, *p.* 177; under Brunsvigia.)

1. *falcata*, Herb. (*l. c.*—Brunsvigia falcata, *Ker.*; *B. M.* 35, *t.* 1443.—Amaryllis falcata, *L'Herit.*; *Spreng. syst.* 2, *p.* 52.—Crinum falcatum, *Murr.*—Hæmanthus falcatus, *Thunb.*) ♃. C. G. H. Fl. large, white, changing to deep rose-colour, R. S.; but rare.

2. *coranica*, Herb. (*l. c.*—Amaryllis coranica, *Burch.*;—*Spreng. syst.* 2, *p.* 52;—*B. Reg.* 2, *t.* 139.) ♃. C. G. H. Fl. large, rose-coloured, May.

β. *pallida*, Herb. (*l. c.*—Amaryllis coranica, β. pallida, *Lindl. B. R.* 15, *t.* 1219.) ♃. C. G. H. Fl. smaller, paler. Introduced in 1841.

CRINUM, L. (*Herb. amaryll. p.* 242;—*Endl. gen. pl.* 1, *p.* 177.)

1. *asiaticum*, Herb. (*o. c. p.* 243.)

α. *toxicarium*, Herb. (*l. c.*—C. toxicarium, *Roxb. fl. ind.* 2, *p.* 134;—*J. Grah. Cat. B. pl. p.* 216.—C. asiaticum, *L.*;—*Spreng. syst.* 2, *p.* 55;—*B. M.* 27, *t.* 1073;—*Rumph.* 6, *t.* 69.) বড় কান্হড় *Buro-Kanoor.* ♃. Moluccas). Both Concans. Lower Bengal. Common in gardens. Fl. large, white, nearly inodorous, R. and C. S.; fr. C. S.—*Root* a good substitute for the Squill. (*O'Shaughnessy.*)

β. *bracteatum*, Herb. (*l. c.*)

αα. *brevifolium*, Herb. (*l. c.*—C. brevifolium, *Roxb. fl. ind.* 2, *p.* 129.—C. bracteatum, *Willd.*; *Spreng. syst.* 2, *p.* 155;—*B. Reg.* 3, *t.* 179.) ♃. Mauritius. Fl. large, white, faintly fragrant, H. and R. S.

γ. *anomalum*, Herb. (*o. c. p.* 244.—Crinum anomalum, *Herb. B. M.* 47, *t.* 2121, *app. p.* 5.—C. plicatum, *Livingstone*; *B. M.* 56, *t.* 2908.) ♃. China. Fl. largish, greenish-white, R. S.

δ. *declinatum*, Herb. (*l. c.*—C. declinatum, *Herb.*; *B. M.* 48, *t.* 2231.) ♃. Silhet. Fl. large, white, stained with red on the outside towards the end, the tube green, R. S.; fr. C. S.

2. *sinicum*, Roxb. (*Herb. l. c.*;—*B. M.* 47, *t.* 2121, *app. p.* 7.) ♃. China. Introduced in 1809. Fl. ?

3. *procerum*, Carey, MSS. (*Herb. o. c. p.* 245;—*B. M.* 53, *t.* 2684.) ♃. Rangoon. Fl. very large, white, without pale red striped, the tube green, R. S.

4. *amabile*, Don. (*Spreng. syst.* 2, *p.* 55;—*Herb. l. c.*;—*B. M.* 39, *t.* 1605. *A. B.*—C. superbum, *Roxb. fl. ind.* 2, *p.* 133;—*J. Grah. Cat. B. pl. p.* 216.) ♃. A spontaneous hybrid from Sumatra. Fl. very large, white, suffused with crimson, fragrant, H. and R. S.; fr. R. S.
5. *augustum*, Roxb. (*fl. ind.* 2, *p.* 136;—*Spreng. syst.* 2, *p.* 55;—*B. M.* 50, *t.* 2397;—*Herb. o. c. p.* 246.—C. amabile, β. angustum, *B. Reg.* 8, *t.* 679.) ♃. A spontaneous hybrid from Mauritius. Fl. very large, lake-coloured, the margins of the petals fading to white, the tube deep red, fragrant, H. and R. S.; fr. R. S.
6. *australe*, Herb. (*l. c.*)
   α. *pedunculatum*, Herb. (*R. Br. pr. p.* 297;—*Spreng. syst.* 2, *p.* 55;—*B. Reg.* 1, *t.* 52.—C. taitense, *Red. lil. t.* 408.—C. australe, *Don. cant. ed.* 6, *p.* 83.) ♃. Port Jackson. Introduced in 1813. Fl.?
   γ. *exaltatum*, Herb. (*l. c.*—Crinum exaltatum, *Herb.; B. M.* 47, *t.* 2121. *app. p.* 5.) ♃. Native place? Fl. large, white, R. S.
   δ. *canaliculatum*, Herb. (*o. c. p.* 247.—C. canaliculatum, *Roxb. fl. ind.* 2, *p.* 132;—*J. Grah. Cat. B. pl. p.* 215;—*B. M.* 47, *t.* 2121, *app. p.* 5;—*Spreng syst.* 2, *p.* 55.) ♃. Native place? Fl. large, white, fragrant, H. and R. S.
7. *rigidum*, Herb. (*o. c. p.* 248.)
   α. *sumatranum*, Herb. (*o. c.*—C. sumatranum, *Roxb. fl. ind.* 2, *p.* 131;—*B. Reg.* 13, *t.* 1049;—*Spreng. syst.* 2, *p.* 54.) ♃. Sumatra. Fl. large, white, fragrant, and fr. R. S.
   β. *macrocarpon*, Herb. (*o. c. p.* 249.—C. macrocarpon, *Carey; B. M.* 48, under *t.* 2231. ♃. Rangoon. Introduced in 1809. Fl. large, white, R. S.; fr. C. S. Seeds 2 inches in diameter.
8. *mauritianum*, Lodd. (*B. Cab. t.* 650;—*Herb. l. c.*) ♃. Mauritius. Fl.?
9. *brachyandrum*, Carey. (*Spreng. syst.* 2, *p.* 55;—*B M.* 47, *t.* 2121, *app. p.* 8, and 48, under *t.* 2231.) ♃. Tropical Australia. Fl. large, white, R. S.
10. *cruentum*, Ker. (*B. Reg.* 2, *t.* 171;—*Spreng. syst.* 2, *p.* 54;—*Herb. o. c. p.* 250.) ♃. Mexico? Fl. very large, peach-coloured-purple, slightly scented, the tube pale-green, R. S.
11. *erubescens*, Ait. (*Spreng. syst.* 2, *p.* 54, excl. c. p. p. 133;—*Herb. o. c. p.* 251.)
   α. *rubrilimbum*, Herb. (*l. c.*—C. erubescens, *B. M.* 30, *t.* 1232;—*Jacq. hort. schönbr.* 4, *t.* 30.—*Redouté lil. t.* 27;—*Roxb. H. B. p.* 23.—C. americanum, β. *L. sp. pl. p.* 419.) ♃. S. America. Fl. very large, beautifully blush-coloured, sweet-scented, the tube green-crimson, R. S.; fr. R. S.
   β. *majus*, Herb. (*l. c.*) Fl. larger, white, R. S.
   δ. *coryntinum*, Herb. (*l. c.*) ♃. Coryntine River. Dutch Guiana. Fl. white, R. S.
12. *Loddigesianum*, Herb. (*o. c. p.* 253.) ♃. Mexico. Fl. very large, purple, with a green tube. Lately introduced.

13. *americanum*, L. (*Spreng. syst.* 2, *p.* 54;—*Herb. o. c. t.* 254;—*L'Herit sert. angl.* 8;—*Roxb. H. B. p.* 23.—C. americanum, β. *B. M.* 26, *t.* 1034.) ♃. S. America. Fl. large, white, fragrant, H. and R. S.; fr. R. S.
14. *Commelini*, Jacq. (*Hort. schönbr.* 2, *t.* 202;—*Spreng. syst.* 2, *p.* 54; not Redouté.—C. Commelinianum, *Herb. l. c.*) ♃. Native place unknown. (S. America. Spreng.) Fl.?
15. *defixum*, Ker. (*Spreng. syst.* 2, *p.* 54; excl. c. p. p. 134.—*Herb. o. c. p.* 255.—*B. M.* 48, *t.* 2208.—C. asiaticum, *Roxb. fl. ind.* 2, *p.* 127;—*J. Grah. Cat. B. pl. p.* 215;—*Rheed.* 11, *t.* 38.—B. Radix toxicaria secunda, *Rumph.* 6, *p.* 156.) সুখ দর্শন *Sook-durshun.* ♃. Coromandel. Both Concans. Bengal, (Serampore,) &c. Fl. large, white, during the night fragrant, and fr. R. S.
16. *ensifolium*, Roxb. (*fl. ind.* 2, *p.* 129.—*Spreng. syst.* 2, *p.* 54;—*Herb. l. c.*;—*B. M.* 49, *t.* 2301.) ♃. Pegu. Fl. large, white, outside and the tube purple, fragrant, H. S.
17. *amoenum*. Roxb. (*fl. ind.* 2, *p.* 27;—*Spreng. syst.* 2, *p.* 54;—*Herb. l. c.*) ♃. Burma. Silhet. Nepal. Fl. large, white, H. and R. S.
    β. *verecundum*, Herb. (*o. c. p.* 256.—C. verecundum, *Carey.*) ♃. Native place? Introduced in 1819. Fl. H. S.
18. *humile*, Sims. (*B. M.* 53, *t.* 2636;—*Spreng. syst. c. p. p.* 134;—*Herb. l. c.*) ♃. East Indies? Fl. large, white, with the tube pale greenish, R. S.
19. *pratense*, Herb. (*l. c.*)
    α. *longifolium*, Herb. (*l. c.*—C. longifolium, *Roxb. fl. ind.* 2, *p.* 130;—*Spreng. syst.* 2, *p.* 54.) ♃. Interior of Bengal. Fl. large, white, fragrant, and fr. R. S.
    β. *lorifolium*, Herb. (*o. c. p.* 257.—C. lorifolium, *Roxb. fl. ind.*;—*Spreng. syst.* 2, *p.* 54.) ♃. Pegu. Fl. large, white, fragrant, R. S.; fr. C. S.
    γ. *elegans*, Herb. (*l. c.*—C. elegans, *Carey*;—*B. M.* 52, *t.* 2592.) ♃. Rangoon. Fl. large, white, fragrant, R. S.; fr. C. S.
    δ. *venustum*, Herb. (*o. c. p.* 258.—C. venustum, *Carey.*) ♃. Silhet. Fl. large, pure white, fragrant, R. S.
    ε. *canalifolium*, Herb. (*l. c.*—C. canalifolium, *Carey.*) ♃. Native place? Fl. large, externally pale red, R. S.
20. *erythrophyllum*, Carey. (*Herb. l. c.*;—*B. M.* 47, *t.* 2121, *app. p.* 7.) ♃. Pegu. Fl. large, white, with the leaves dark blood-coloured, R. S.
21. *australasicum*, Herb. (*o. c. p.* 259.)
    α. *arenarium*, Herb. (*l. c.*—C. arenarium, *Herb.*; *B. M.* 49, *t.* 2355;—*Spreng. syst.* 2, *p.* 55.) ♃. Water Island. Fl. large, white, with a green, faintly red-speckled tube, R. S.
    β. *blandum*, Herb. (*l. c.*—C. arenarium, β. blandum, *B. M.* 52, *t.* 2531.) ♃. Water Island. Fl. large, white, blush-coloured without, R. S.

δ. *angustifolium*, Herb. (*l. c.*—C. angustifolium, *R Br. pr. p.* 297;—*Spreng. syst.* 2, *p.* 54, not L. fil.) 4. Shores of N. Holland within the Tropics. Fl.?

22. *Broussonetii*, Herb. (*B. M.* 47, *t.* 2121;—*Spreng. syst.* 2, *p.* 55.—C. Broussonetianum, *Herb. o. c. p.* 260.—Amaryllis Broussonetii, *Redouté lil. t.* 6.) 4. Sierra Leona. Fl. large, purple 5 striped, R. S.

β. *pluriflorum*, Herb. (*l. c.*—C. yuccæflorum, *Salisb. par.* 52.) 4. Sierra Leona. Fl. conform, R. S.

γ. *yuccæoïdes*, Herb. (*l. c.*—Amaryllis yuccæoïdes. *Thomps. bot. displ. t.* 12.) 4. Sierra Leona. Fl. conform, R. S.

23. *distichum*, Herb. (*l.* c.—Amaryllis ornata, α. *B. M.* 31, *t.* 1253.) 4. Sierra Leona. Fl. large, white, striped with red, R. S.

24. *petiolatum*, Herb. (*l. c.*)

α. *spectabile*, Herb. (*l. c.*—Amaryllis ornata, β. *B. M.* 24, *t.* 923.—A. gigantea, *Ker.*;—*Spreng. syst.* 2, *p.* 52.—Crinum giganteum, *Andr. B. Repos. t.* 169.) 4. Tropical W. Africa. Fl. large, white-greenish, fragrant, H. and R. S.

25. *scabrum*, Herb. (*o. c. p.* 262;—*Spreng. syst.* 2, *p.* 55;—*B. M.* 47, *t.* 2180.—C. scaberrimum, *Hort. Soc. trans.* 3, *p.* 195.) 4. Rio Janeiro. Fl. large, striped with bright red, fragrant, R. S.

26. *ornatum*, Herb. (*l. c.*)

α. *zeylanicum*, Herb. (*l. c.*—Crinum zeylanicum, *L. syst. veg. p.* 263;—*Roxb. fl. ind.* 2, *p.* 139?—*J. Grah. Cat. B. pl. p.* 216.—Amaryllis zeylanica, *L.*—A. ornata, *B. M.* 29, *t.* 1171.—A. latifolia, *Andr.*; *B. Repos. t.* 478.) 4. Ceylon. Peninsula of India. Rangoon. Bengal. Fl. large, white, streaked with purple, fragrant, with a purple tube, and fr. R. S.

β. *Herbertianum*, Herb. (*o. c. p.* 263.—Crinum Herbertianum, *Wall. pl. as. rar.* 2, *p.* 145.) 4. Rangoon. Fl. very large, reddish, purple-striped, fragrant, R. S.

γ. *latifolium*, Herb. (*l. c.*—C. latifolium, *Roxb. fl. ind.* 2, *p.* 137, not B. Reg.;—*J. Grah. Cat. B. pl. p.* 216. excl. syn. B. M. and Ait.—Amaryllis latifolia, *L'Herit*;—*Spreng. syst.* 2, *p.* 52;—*Rheed.* 11, *t.* 39.) 4. Coromandel. Both Concans. Bengal. Fl. large, pale rose, almost white, faintly fragrant, with a green tube, and fr. R. S.

ε. *speciosum*, Herb. (*o. c. p.* 264.—C. speciosum, *Herb.*; *B. M.* 48, *t.* 2217, not Thunb.) 4. North of Bengal. Fl. large, striped with rose, R. S.

ξ. *moluccanum*, Herb. (*l. c.*—C. moluccanum, *Roxb. fl. ind* 2, *p.* 140;—*B. M.* 49, *t.* 2292;—*J. Grah. Cat. B. pl. p.* 216.—Amaryllis moluccana, *Ker.*;—*Spreng. syst.* 2, *p.* 52.—Tulipa javanica, *Rumph.* 5, *t.* 105.) 4. Moluccas. Fl. large, flesh-coloured, with white margins, R. S.

μ. *Careyanum*, Herb. (*l. c.*—C. Careyanum, *Herb.*; *B. M.* 51, *t.* 2466.—C. ornatum, *Carey's MSS.*) 4. Mauritius. Fl. large, white,

stained on the outside near the apex with red, the tube greenish, R. S.

27. *brevilimbum*, Carey. (*Herb. o. c. p.* 266.—*B. M.* 47, *t.* 2121, *app. p.* 7.) 4. Tropical N. Holland. Fl. smallish, white, R. S.

28. *flaccidum*, Herb. (*l. c.*;—*B. M.* 47, *t.* 2133;—*Spreng. syst.* 2, *p.* 55, excl. c. p. p. 134.—Amaryllis australasica, *Ker.*; *B. Reg.* 5, *t.* 426.) 4. N. Holland. Fl. large, white, R. S.

29. *revolutum*, Herb. (*o. c. p.* 267.—Amaryllis revoluta, *a. B. Reg.* 8, *t.* 623.—*B. M.* 23, *t.* 915.) 4. C. G. H. Lately introduced.

30. *variabile*, Herb. (*o. c. p.* 268.—Amaryllis variabilis, *Jacq. hort. schönbr.* 4, *t.* 426.—Amaryllis revoluta, β. *B. Reg.* 8, *t.* 615.—Crinum crassifolium, Herb.; *B. M.* 49, *app.*) 4. C. G. H. Introduced in 1841.

31. *capense*, Herb. (*o. c. p.* 269.)

a. princeps, Herb. (*l. c.*—Amaryllis capensis, *Mill. dict. ed.* 8, *No.* 12.—A. longifolia, *B. M.* 18, *t.* 661.) 4. C. G. H. Fl. large, pale rose-coloured, with deeper-coloured streaks towards the middle of the petals, R. S.

β. *riparium*, Herb. (*l. c.*;—*B. M.* 53, *t.* 2688.—Amaryllis longifolia, β. riparia, *B. Reg.* 7, *p.* 546.—A. riparia, *Burch. Cat. MSS.*) 4. C. G. H. Fl. large, dark purple, R. S.

32. *campanulatum*, Herb. (*o. c. p.* 270;—*B. M.* 47, *t.* 2121, *app. p.* 7.—C. aquaticum, *Burch.*;—*B. M.* 49, *t.* 2352.) 4. C. G. H. Fl. large, rose-coloured, R. S.

33. *longiflorum*, Herb. (*o. c. p.* 271.—C. hybridum erubescenti-capense, *Herb.*; *B. M.* 49, *t.* 2336.—Amaryllis longifolia, γ. longiflora, *B. Reg.* 4, *t.* 303.) 4 Jamaica. A scarcely spontaneous hybrid. Fl. large, white, pale-red striped, R. S.

Of *hybrids or mixed Crosses of Crinum* are cultivated in the garden here 30 varieties.

Clivia, Lindl.

1. *nobilis*, Lindl. (*B. Reg.* 14, *t.* 1182.—*B. Cab.* 20, *t.* 1906.) C. G. H. Sept. 1840.

Hæmanthus, L. (*Spreng. syst.* 2, *p.* 6, *No.* 1201;—*Herb. amaryll. p.* 232;—*Endl. gen. pl.* 1, *p.* 177.)

1. *puniceus*, Jacq. (*Spreng. syst.* 2, *p.* 56;—*B. M.* 32, *t.* 1315;—*B. Cab. t.* 912;—*Herb. o. c. p.* 233.) 4. C. G. H. Fl. heads large, pale yellowish-red. Introduced in March, 1841. Has not fl. yet.

2. *virescens*, Herb. (*o. c. p.* 235.)

a. pubescens, Herb. (*l. c.*—H. pubescens, *L.*; *B. Reg.* 5, *t.* 382;—*B. Cab. t.* 702;—*Spreng. syst.* 2, *p.* 57, not Thunb.) 4. C. G. H. Fl. white. Introduced in March, 1841. Has not fl. yet.

β. *albiflos*, Herb. (*l. c.*—H. albiflos, *Jacq. hort. schönbr.* 1, *p.* 31, *t.* 59;—*B. M.* 31, *t.* 1239.—H. pubescens, β. albiflos, *B. Reg.* 12, *t.* 984.) 4. C. G. H. Fl. white. Introduced in March, 1841. Has not fl. yet.

3. *coccineus*, L. (*Spreng. syst.* 2, *p.* 56;—*Herb. o. c. p.* 236.)
   a. grandivalvis, Herb. (*l. c.*—H. coccineus, *Ait.; B. M.* 27, *t.* 1075.) 4. C. G. H. Fl. bright red. Introduced in March, 1841. Has not fl. yet.
4. *tigrinus*, Jacq. (*Hort. schönbr.* 1, *p.* 29, *t.* 56;—*Spreng. syst.* 2, *p.* 56; —*B. M.* 41, *t.* 1705.—*Herb. o. c. p.* 237.) 4. C. G. H. Fl. pale red. Introduced in March, 1841. Has not fl. yet.

CYTRANTHUS, Ait. (*Spreng. syst.* 2, *p.* 6, *No.* 1204;—*Herb. amaryll. p.* 128;—*Endl. gen. pl.* 1, *p.* 178.)

1. *obliquus*, Ait. (*Spreng. syst.* 2, *p.* 58;—*Herb. l. c.;—B. M.* 28, *t.* 1133.) 4. C. G. H. Fl. yellowish, variegated with orange-red and green. Introduced in March, 1841. Has not fl. yet.
2. *pallidus*, Sims. (*B. M.* 51, *t.* 2471;—*Herb. o. c. p.* 129.) 4 C. G. H. Fl. yellowish pale-red. Introduced in March, 1841. Has not fl. yet.
3. *collinus*, Burch. (*Spreng. syst.* 2, *p.* 58; excl. c. p. p. 134;—*Herb. l. c.;—B. Reg.* 2, *t.* 162.) 4. C. G. H. Fl. scarlet. Introduced in March, 1841. Has not fl. yet.
4. *spiralis*, Burch. (*Spreng. syst.* 2, *p.* 58;—*B. Reg.* 2, *t.* 167;—*Herb. l. c.*—Monella spiralis, *Herb. B. M.* 49, *app.*) 4. C. G. H. Fl. orange-red, below yellow. Introduced in March, 1841. Has not fl. yet.
5. *ventricosus*, Willd. (*Herb. l. c.*—C. angustifolius, *Jacq. hort. schönbr.* 1, *p.* 40, *t.* 76; not Ait.) 4. C. G. H. Fl. orange-red. Introduced in March, 1841. Has not fl. yet.
6. *striatus*, Herb. (*l. c.—Spreng. syst. c. p. p.* 134;—*B. M.* 52, *t.* 2534.) 4. C. G. H. Fl. very large, red, striped with yellow. Introduced in March, 1841. Has not fl. yet.
7. *angustifolius*, Ait. (*Spreng. syst.* 2, *p.* 58;—*Herb. l. c.;—B. M.* 8, *t.* 271, not Jacq.) 4. C. G. H. Fl. orange-red. Introduced in March, 1841. Has not fl. yet.
8. *odorus*, Ker. (*B. Reg.* 6, *t.* 503;—*Spreng. syst.* 2, *p.* 58;—*Herb. l. c.*) 4. C. G. H. Fl. crimson, fragrant. Introduced in March, 1841. Has not fl. yet.

GASTRONEMA, Herb. (*Amaryll. p.* 132;—*Endl. gen. pl.* 1, *p.* 178, under Cyrtanthus.

1. *clavatum*, Herb. (*l. c.;—B. M.* 49, *t.* 2291.—Cyrtanthus uniflorus, *Ker.; B. Reg.* 2, *t.* 168;—*Spreng. syst.* 2, *p.* 58.—Amaryllis clavata, *L'Herit.*—A. Pumilio, *Ait.;—Spreng. o. c. p.* 49.) 4. C. G. H. Fl. white, striped with red. Introduced in 1819. Fl.?

CHLIDANTHUS, Lindl. (*Herb. amaryll. p.* 190;—*Endl. gen. pl. p.* 178.)

1. *fragrans*, Herb. (*l. c. t.* 27, *f.* 2;—*B. Reg.* 8, *t.* 640;—*Lindl. coll. t.* 34.—Pancratium luteum, *Poir.—Spreng. syst.* 2, *p.* 48.) 4. Buenos Ayres.? Fl. large, yellow, fragrant. Introduced in 1821. Fl.?

B. NARCISSEÆ, *Endl. gen. pl.* 1, *p.* 178.

COBURGIA, Sweet. (*Herb. amaryll. p.* 196;—*Endl. l. c.*)

1. *incarnata*, Sweet. (*fl. gard. s.* 2, *t.* 17;—*Herb. l. c.*—Pancratium incarnatum, *Kth.*;—*Spreng. syst.* 2, *p.* 48.) 4. Quito, on the banks of the river Machangara. Fl. under 5 inches, crimson, with a green spot on each segment. Introduced in 1832, but has not fl. yet.

EURYCLES, Salisb. (*Herb. amaryll. p.* 227;—*Endl. gen. pl.* 1, *p.* 179.)

1. *amboinensis*, Salisb. (*Herb. l. c.*—Proiphys amboinensis, *Herb.*—*B. M.* 49. *app.*—Pancratium amboinense, *L.*; *Spreng. syst.* 2, *p*, 46;—*B. M.* 35, *t.* 1419.—Crinum nervosum, *L'Herit.*;—*Roxb. fl. ind.* 2, *p.* 135.—Cœpa silvestris, *Rumph.* 6, *t*, 70, *f.* 1.) 4. Amboyna. Philippines. Fl. large, pure white, fragrant, May and June; fr. R. S.

CALOSTEMMA, R. Br. (*pr. p.* 297;—*Herb. amaryll. p.* 225;—*Endl. gen. pl.* 1, *p.* 179;—*Spreng. syst.* 2, *p.* 5, *No.* 1194.)

1. *album*, R. Br. (*o. c. p.* 298;—*Herb. o. c. p.* 226;—*Spreng. syst.* 2, *p.* 45.) 4. Tropical N. Holland. Fl. white. Introduced in 1819. Fl. ?

PANCRATIUM, L. (*Herb. amaryll. p.* 202.—Schizostephanium, *Reichenb.*;—*Endl. gen. pl.* 1, *p.* 179, under Pancratium.)

1. *maritimum*, L. (*Spreng. syst.* 2, *p.* 45;—*B. Reg.* 2, *t.* 161;—*Herb. l. c.*;—*Red. lil. t.* 8;—*Fl. græc.* 4, *t.* 309;—*Herb. l. c. t.* 34, *f.* 21-22, (seeds) *Herb. l. c. t.* 42, *f.* 7, (anthers)—*Roxb. H. B. p.* 23.) 4. S. Europe. N. Africa. Fl. large, white, fugacious, R. S.
2. *canariense*, Ker. (*B. Reg.* 2, *t.* 174;—*Spreng. syst*, 2, *p.* 46;—*Herb. l. c.*) 4. Canaries. Fl. large, white, R. S.
3. *illyricum*, L. (*Spreng. syst.* 2, *p.* 46;—*B. M.* 19, *t.* 718;—*Herb. l. c.*—P. malabathricum, *Herb.*;—*Rheed.* 11, *t.* 40.) 4. Spain. Corsica. Sardinia. Sicily. Illyria. Fl. large, dull, white, fragrant, R. S.
4. *verecundum*, Soland. (*Spreng. syst.* 2, *p.* 46;—*B. Reg.* 5, *t.* 413;—*Herb. l. c.*—P. biflorum and triflorum, *Roxb. fl. ind.* 2, *p.* 125-26.) 4. India. Fl. largish, white, R. S.
5. *zeylanicum*, L. (*Spreng. syst.* 2, *p.* 46;—*Herb. l. c.*;—*Roxb. fl. ind.* 2, *p.* 124;—*J. Grah. Cat. B. pl. p.* 216;—*B. M.* 52, *t.* 2538;—*B. Reg.* 6, *t.* 479;—*Rumph* 6, *t.* 70, *f.* 2.) 4. Moluccas. Ceylon. Fl. large, pure white, faintly fragrant, R. S.
6. *longiflorum*, Bank's Herb. (*Roxb. fl. ind.* 2, *p.* 124;—*Herb. l. c. t.* 42, *f.* 2.) 4. Moluccas. Fl. large, pure white, fragrant, R. S. Extinct in our gardens.

HYMENOCALLIS, Herb. (*Amaryll. p.* 209;—*Endl. gen. pl.* 1, *p.* 179, under Pancratium.)

1. *speciosa*, Herb. (*l. c.*)
   a. longi-petiolata, Herb. (*l. c.*—Pancratium speciosum, *Salisb.*;—*Spreng. syst.* 2, *p.* 47;—*B. M.* 35, *t.* 1453;—*Red. lil. t.* 412;—*J. Grah. Cat. B. pl. p.* 216.—P. amœnum, *Lodd. B. Cab. t.* 286; not *B. M.*) 4. W. Indies. Fl. very large, pure white, extremely fragrant, especially in the evening, and fr. R. S.

2. *amœna*, Herb. (*o. c. p.* 211.)
   α. *princeps*, Herb. (*l. c.*—Pancratium amœnum, *Salisb.*;—*Spreng. syst.* 2, *p.* 47;—*B. M.* 36, *t.* 1467.—P. fragrans, *Andr. B. Repos. t.* 556;—*Lodd. B. Cab. t.* 834.) ♃. Guiana. Fl. large, pure white, fragrant, and fr. R. S.
   β. *ovata*, Herb. (*l. c.*—Pancratium ovatum, *Mill.*;—*Spreng. syst.* 2, *p.* 47;—*B. Reg.* 1, *t.* 43.) ♃. W. Indies. Fl. large, white, and fr. R. S.
3. *caribæa*, Herb. (*o. c. p.* 212.)
   α. *princeps*, Herb. (*l. c.*—Pancratium caribæum, *L.*;—*Spreng. syst.* 2, *p.* 47;—*B. M.* 21, *t.* 826.—P. declinatum, *Jacq. amer.* 51, *t.* 102; *hort. vind.* 3, *p.* 11, *t.* 10;—*Red. lil*, *t.* 414;—*Lodd. B. Cab. t.* 558.) ♃. W. Indies. Fl. large, white, with the tube streakletted green, and fr. R. S.
   γ. *patens*, Herb. (*l. c.*—Pancratium patens, *Red. lil.* 380 and 414. *annot*; *Spreng. syst.* 2, *p.* 47.) ♃. W. Indies. Fl. large, white, and fr. R. and C. S.
4. *expansa*, Herb. (*o. c. p.* 213.—Pancratium expansum, *Sims.*; *B. M.* 44, *t.* 1941, excl. syn;—*Spreng. syst.* 2, *p.* 46.) ♃. Lima? Fl. large, white, fragrant, and fr. R. S.
5. *tenuiflora*, Herb. (*l. c.*) ♃. Native place? Fl. large, white, R. S.
6. *angusta*, Herb. (*o. c. p.* 214.—Pancratium angustum, *Ker. B. Reg.* 3, *t.* 221;—*Spreng. syst.* 2, *p.* 46.) ♃. Carthagena? Fl. large, white, R. S.
7. *pedalis*, Herb. (*l. c.*—Pancratium pedale, *Lodd. B. Cab. t.* 809;—*B. Reg.* 19, *t.* 1641;—*Röm. and Sch.* 7, *p.* 916.) ♃. Native place unknown. Fl. 1 foot long, white, R. S.
8. *caymanensis*, Herb. (*l. c.*—Pancratium patens, *Lindl. in Hort. soc. trans.* 6, 87, not Redouté.) ♃. Island of Grand Cayman. Fl. large, white, R. S.
9. *crassifolia*, Herb. (*o. c. p.* 215.) ♃. E. Florida. Introduced in 1832, but has not fl.
10. *adnata*, Herb. (*l. c.*)
   α. *princeps*, Herb. *l. c.*—Pancratium littorale, *Jacq. amer.* 99, *t.* 179; *hort. vind.* 3, *p.* 41, *t.* 75;—*Spreng. syst.* 2, *p.* 46;—*Roxb. H. B. p.* 23;—*J. Grah. Cat. B. pl. p.* 216.—P. distichum, *B. M.* 44, *t.* 1879, as to the fig. and Lee's plant.—P. mexicanum, *Hortul*, not L., nor Walt.) ♃. Mexico. Fl. large, white, and fr. R. S.
   β. *Dryandrina*, Herb. (*l. c.*—P. littorale, β. *B. M.* 21, *t.* 825;—P. Dryandri, *Ker.*;—*Spreng. syst.* 2, *p.* 47.) ♃. S. America. Fl. large, white, and fr. R. S.
   γ. *disticha*, Herb. (*l. c.*—Pancratium distichum, *B. M.* 44, *t.* 1879, as to Herbert's plant, not the figure.) ♃. S. America. Fl. large, white, and fr. R. S.
   δ. *acutifolia*, Herb. (*l. c.*—Hymenocallis litoralis, δ. acutifolia, *B. M.* 53, *t.* 2621.—Pancratium mexicanum, *B. Reg.* 11, *t.* 940, not of

others.—P. acutifolium, *Swt. hort. brit.*) 4. Mexico. Fl. large, white, and fr. R. S.

ε. *Staplesiana*, Herb. (*l. c.*.) 4. Mexico. Fl. large, white, and fr. R. S.

11. *rotata*, Herb. (*o. c. p.* 217.)

a. quadriflora, Herb. *l. c.*—Pancratium rotatum, *B. M.* 21, *t.* 827;—*Lodd. B. Cab. t.* 19.—P. carolinianum, *Catesb. carol*, with a very bad figure) 4. Bogs of N. America. Fl. large, white, R. S.

β. *disciformis*, Herb. (*l. c.*—Pancratium mexicanum, *L.*;—*Spreng. syst.* 2, *p.* 47, not of others.—P. rotatum, *a. B. M.* 27, *t.* 1082.—P. disciforme, *Red. lil. t.* 155.) 4. Bogs of N. America. Fl. large, white, R. S.

12. *Spofforthiæ*, Herb. (*l. c.*—H. disticho-rotata, *Herb. MSS.*) 4. Fl. large, white, R. S.

13. *glauca* (Pancratium glaucum, *Lodd.*) C. S. 1839.

Ismene, Herb. (*Amaryll. p.* 222;—*Endl. gen. pl.* 1, *p.* 179, under Pancratium.)

1. *Amancaës*, Herb. (*l. c.*—Pancratium Amancaes, *Ker.*;—*B. M.* 30, *t.* 1224;—*B. Reg.* 7, *t.* 600;—*Spreng. syst.* 2, *p.* 45.—Narcissus Amancaes, *Ruiz. and Pav.*) 4. Peru. Fl. large, bright yellow. Introduced in 1825. Fl. ?

2. *calathina*, Herb. (*B. M.* 53, *t.* 2685.—Pancratium calathinum, *Ker.*; *B. Reg.* 3, *t.* 215. (very bad);—*Spreng. syst.* 2, *p.* 45.—P. calathiforme, *Red. lil.* 353.) 4. Brazil. Chili. Fl. large, white, R. S.

3. *nutans*, Herb. (*o. c. p.* 223;—*J. Grah. Cat. B. pl. p.* 216, *No.* 1526, excl. syn. Pancratium calathinum.—Pancratium nutans, *Ker.*;—*B. M.* 38, *t.* 1561, under the name of P. calathinum.) 4. S. America? Fl. large, white, R. S. but rare.

Narcissus, L. (*Spreng. syst.* 2, *p.* 5, *No.* 1193;—*Herb. amaryll. p.* 316;—*Endl. gen. pl.* 1, *p.* 179.)

Out of 35 species of Narcissus, which have been introduced into the garden here, from 1812 to 1829, only one has flowered and continues to do so; viz.

1. *Tazetta*, L. (*Spreng. syst.* 2, *p.* 42.—Hermione Tazetta, *Herb. amaryll. p.* 321, *t.* 41, *f.* 18.) 4. S. Europe. N. Africa. Asia Minor. Fl. smallish, with a white limb, and a pale yellow cup, January and Feb.; fr. 0.

Gethyllis, L. (*Spreng. syst.* 2, *p.* 7, *No.* 1235;—*Herb. amaryll. p.* 185;—*Endl. gen. pl.* 1, *p.* 179.)

1. *spiralis*, L. (*Spreng. syst.* 2, *p.* 82;—*B. M.* 27, *t.* 1088;—*Herb. l. c.*) 4. C. G. H. Fl. large, white, purplish without. Introduced in March, 1841. Has not flowered yet.

C. Anomalæ; *Endl. gen. pl.* 1, *p.* 180.

Alströmeria, L. (*Spreng. syst.* 2, *p.* 7, *No.* 1234;—*Herb. amaryll. p.* 88;—*Endl. l. c.*)

1. *Pelegrina*, Feuill. (*Obs.*—*L*;—*Spreng. o. c. p.* 80;—*B. M.* 4, *t.* 139. A. peregrina, *Herb. o. c. p.* 91,) 4. Peru. Chili. Fl. large, externally

rose-coloured, with green tipped petals, internally with the 3 outer petals crimson in the middle, and the 3 inner dark purple spotted, and at the base yellow. Introduced in 1825. Fl?

2. *caryophyllea*, Jacq. (*Hort. schönbr.* 4, *t.* 465;—*Spreng. syst.* 2, *p.* 80;—*Herb. l. c.*—A. Ligtu, *B. M.* 4, *t.* 125; not Feuill.) ♃. Peru. Fl. large, delightfully fragrant, whitish-scarlet, striped. Introduced in 1822. Fl.?

3. *Simsii*, Spreng. (*Syst.* 2, *p.* 80.—A. Simsiana, *Herb. o. c. p.* 99.—A. pulchella, *Sims.; B. M.* 49, *t.* 2353;—*B. Reg.* 12, *t.* 1008;—*Hook. exot. fl. t.* 64;—*Swt. brit. fl. gard. t.* 267; not Herb.) ♃. Chili. Fl. large, 4 outer petals deep red, 2 inner ones bright yellow, with dark orange speckles. Introduced in 1841.

4. *Hookeriana*, Spreng. (*Herb. o. c. p.* 95.—A. rosea, *Hook. exot. fl. t.* 181;—*Spreng. c. p. p.* 135; not Ruiz. and Pav.) ♃. Peru. Has been introduced into H. C. G. Fl.?

5. *hirtella*, Kth. (*Spreng. syst.* 2, *p.* 82;—*Swt. fl. gard. t.* 228.) ♃. Mexico. Has been introduced into H. C. G. Fl?

Doryanthes, Correa. (*R. Br. pr. p.* 298;—*Endl. gen. pl.* 1, *p.* 180;—*Spreng. syst.* 2, *p.* 7, *No.* 1233.)

1. *excelsa*, Correa. (*R. Br. l. c.;—Spreng. syst.* 2, *p.* 80;—*B.* M. 41, *t.* 1685, *A. B.*) ♃. Port Jackson. Fl. immensely large, crimson. Introduced in 1841.

D. Agaveæ, *Endl. gen. pl.* 1, *p.* 181.

Agave, L. (*Spreng. syst.* 2, *p.* 7, *No.* 1232;—*Herb. amaryll. p.* 127;—*Endl. l. c.*)

1. *lurida*, Ait. (*Spreng. syst.* 2, *p.* 79;—*B. M.* 37, *t.* 1522; excl. most of the syn.;—*Roxb. H. B. p.* 25;—*Herb. o. c. p.* 128.) ♃. N. Spain. Fl. large, green, May and June; fr. Aug. to Oct.

2. *Veræ Crucis*, Haw. ♃. S. America. Introduced in 1840.

Fourcroya, Vent. (*Endl. gen. pl.* 1, *p.* 181;—*Herb. amaryll. p.* 126;—*Spreng. syst.* 2, *p.* 79; under Agave.)

1. *tuberosa*, Haw. (*Herb. l. c.*—Agave tuberosa, *Mill.;—Spreng. l. c.*) ♃. Tropical America. Fl. largish, greenish-white, May and June; fr. Aug. to Oct.

2. *Cantala*, Haw. (*Herb. l. c.*—Agave Cantala, *Roxb. fl. ind.* 2, *p.* 167;—*Spreng. syst.* 2, *p.* 79;—*J. Grah. Cat. B. pl. p.* 222.—Aloë americana, *Rumph.* 5, *t.* 94.) বিলাতি অনান্নাস *Bilati-anannas*. ♃. Moluccas? S. China? Flowers in May and June, when from 10 to 15 years old, and then from 20 to 30 feet high. (*Roxb.*)

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* *Lapiedra Martinezii*, Lag. ♃. S. Spain.—*Carpolyza spiralis*, Salisb. (Strumaria spiralis, Ker.; B. M. 34, t. 1383.) ♃. C. G. H.—*Strumaria crispa*, Ker.; B. M. 33, t. 1363. ♃. C. G. H.—*Oporanthus exiguus*, Herb. ♃. Tangiers.—*Zephyranthes minima*, Herb. ♃. Buenos Ayres.—*Z. Grahamiana*, Herb. ♃. Mexico.—*Habran-*

thus kermesinus, Herb. (Amaryllis kermesina, B. Reg. 19, t. 1638.) 4. Brazil.—*H. intermedius*, Herb. (Amaryllis intermedia, B. Reg. 14, t. 1148.) 4. Brazil.—*H. Bagnoldi*, Herb. B. Reg. 17, t. 1396. 4. Chili.—*H. phycelloïdes*, Herb.; B. Reg. 17, t. 1417. 4. Chili.—*Hippeastrum breviflorum*, Herb.; B. M. 64, t. 3549. 4. Buenos Ayres.—*Griffinia hyacinthina*, R. Br. (Amaryllis hyacinthina, B. Reg. 2, t. 163.) 4. S. America.—*Crinum purpurascens*, Herb. 4. Fernando del Po.—C. *Lindleyanum*, Herb. 4. Surinam.—*C. strictum*, Herb. B. M. 53, t. 2635. 4. Mexico?—*C. submersum*, Herb.; B. M. 51, t. 2463. 4. Rio Janeiro.—*C. insigne*, Herb. (Amaryllis insignis, B. Reg. 7, t. 579.) 4. Ceylon. Mahableshwar.—*Collania urceolata*, Schult. fil. (Crinum urceolatum, Ruiz. and Pav.) 4. Peru.—*Eustephia cyrtanthoïdes*, Endl. (Amaryllis cyrtanthoïdes, Sims.; B. M. 50, t. 2399.) 4. Chili.—*E. ignea*, Endl. (Amaryllis ignea, Ker.; B. Reg. 10, t. 809.) 4. Chili.—*E. Herbertiana*, Endl. (Phycella Herbertiana, Lindl. B. Reg. 16, t. 1341.) 4. Valparaiso.—*Eucrosia bicolor*, Ker.; B. Reg. 3, t. 207; B. M. 51, t. 2490. 4 S. America.—*Stenomesson flavum*, Herb.; B. M. 1849, app. (1821.); B. M. 53, t. 2641, (Chrysiphiala flava, Ker. (1823,) in B. Reg. 9, t. 778; Endl. gen. pl. 1, p. 178.) 4. S. America.—*S. curvidentatum*, Herb.; B. M. 53, t. 2640. 4. S. America. —*S. croceum*, Domb.; B. M. 64, t. 3615. 4. S. America.—*Coburgia fulva*, Herb.; B. Reg. 18, t. 1497; B. M. 60, t. 3221. 4. S. America.—*Eurycles australasica*, (Pancratium australasicum, Ker.; B. Reg. 9, t. 715.) 4. Australia.—*E. Cunninghamii*, Lindl.; B. Reg. 18, t. 1506; B. M. 62, t. 3399. 4. N. Holland.—*Tapizanthus humilis*, Herb. 4. Seville.—*Hymenocallis guianensis*, Herb. (Pancratium guianense, Ker.; B. Reg. 4, t. 265.) 4. Guiana.—*Ismene Macleana*, Herb.; B. M. 65, t. 3675. 4. Lima.—*Narcissus orientalis*, L.; B. M. 24, t. 948. 4. Levant.—*N. viridiflorus*, Schousb.; B. M. 41, t. 1687. 4 N. Africa.—*N. serotinus*, L. 4. N. Africa.—*Clivia nobilis*, Lindl.; B. Reg. 14, t. 1182. (Imatophyllum Aitonii, Hook.; B. M. 55, t. 2856.) 4 C. G. H.—*Bomarea acutifolia*, Herb. (Alströmeria acutifolia, Lk. and Otto.; B. M. 58, t. 3050.) 4. ⌒ Mexico.—*Agave americana*, L.; B. M. 65, t. 3654. 4. S. America.—*A. flaccida*, Haw. 4. S. America.—*A. yuccæfolia*, Willd. 4. New Spain.—*A. mexicana*, Haw. 4. Mexico.—*A. vivipara*, L. 4. S. America.—*A. Karatto*, Mill. 4. S. America.—*A. geminiflora*, Ker.; B. Reg. 14, t. 1145. (Buonapartea juncea, Schlecht.) 4. S. America.—*Fourcroya gigantea*, Vent.; B. M. 48, t. 2250. 4. S. America.—*F. cubensis*, Haw. 4. Cuba.—*F. rigida*, Haw. 4. S. America.—*F. madagascariensis*, Haw. 4. Madagascar.

ORDER CCXXIX.—HÆMODORACEÆ, R. Br.—Lindl. Nat. Syst. p. 330;—Endl. gen. pl. 1, p. 170.

THE BLOOD-ROOT TRIBE.

Herbs, referred to about 12 genera. Of these, Spreng. syst. enumerates 12 species for New Holland; 12 for S. Africa; (10 *Harvey*) 4 for S. America; and 4 from N. America. One species, Aletris litoralis, Herb. Kön. is mentioned in Wall. Cat., but can scarcely be of Indian origin.

"The red colour found in the roots of Dilatris tinctoria, Pursh. in N. America, where it is used for dyeing, prevails in Hæmodorum, Sm., and Wachendorfia, L." DC. (*Lindl.*)

WACHENDORFIA, Burm. (*Spreng. syst.* 1, *p.* 127, *No.* 178;—*Endl. gen. pl.* 1, *p.* 171.)

1. *thyrsiflora*, L. (*Spreng. syst.* 1, *p.* 169;—*B. M.* 27, *t.* 1060.) 4. C. G. H. Introduced into the garden here in March 1841, but has not fl. yet.
2. *brevifolia*, Ker. (*B. M.* 29, *t.* 1166.) 4. C. G. H. Introduced with No. 1, and has likewise not fl. yet.

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* *Hagenbachia brasiliensis*, Nees. 4. Brazil.—*Xiphidium albidum*, Lam. 4. W. Indies.—*X. coeruleum*, Aubl. 4. Guiana.—*Hæmodorum coccineum*, R. Br. 4. Tropical New Holland.

ORDER CCXXX.—BURMANNIACEÆ, Bl.—Lindl. Nat. Syst. p. 330;—Endl. gen. pl. 1, p. 163.

Herbs, by Lindl. referred to 5 genera. Of these, Spreng. syst. assigns 4 species to Brazil; 2 to Carolina; 2 to New Holland; (1 Indian) and 1 to S. Africa. Lindl. adds Apteria setacea, Nutt. for N. America. In the E. Indies have been discovered 3-4 species of *Burmannia*, (Ceylon, S. Concan; New Holland; 1 from Penang; 1 from Nepal; 1 from the Peninsula of India, Röttl.); 1 of *Gonyanthes*, (Java); and 1 of *Gymnosiphon*, (Java.)

"Apteria setacea is slightly bitter, and very astringent. A similar flavour, something like that of Green Tea, is discernible in Tripterella cœrulea. *Nuttall.*" (*Lindl.*)

BURMANNIA, L. (*Spreng. syst.* 1, *p.* 125, *No.* 144;—*R. Br. pr. p.* 264;—*Endl. gen. pl.* 1, *p.* 164.

1. *disticha*, L. (*Spreng. syst.* 1, *p.* 145;—*Roxb. Corom.* 3, *t.* 242; *fl. ind.* 2, *p.* 117;—*J. Grah. Cat. B. pl. p.* 223;—*Burm. zeyl. t.* 20, *f.* 1.—B. distachya, *R. Br. pr. p.* 264.) ⊙ Ceylon. S. Concan. New Holland. Fl. pale blue, and fr. R S.

* *Burmannia coelestis*, D. Don.; Royle ill. t. 91, f. 1. ⊙ Nepal.—*B. triflora*, Roxb. Penang.—*B. flava*, Mart. Brazil.—*B. dasyantha*, Mart. Brazil.—*Gonyanthes candida*, Bl. ⊙ Java.—*Gymnosiphon aphyllus*, Bl. ⊙ Java.

ORDER CCXXXI.—TACCACEÆ, Lindl. Nat. Syst. p. 331;—Endl. gen. pl. p. 159.

Large, perennial, tuberous-rooted herbs, belonging to 1 genus. Of this, 7 species belong to the E. Indies, (the Concans, Silhet, Chittagong, Singapore, Penang, Java, the Moluccas). Tacca pinnatifida is also a native of Madagascar, New Holland, and the South Sea Islands.

"The great fleshy tuberous roots are filled with a nutritive fæcula resembling arrow-root, but its petioles are acrimonious. *Agardh.*" (*Lindl.*)

TACCA, Forst. (*Spreng. syst.* 2, *p.* 10, *No.* 1294;—*R. Br. pr. p.* 340;—*Endl. gen. pl.* 1, *p.* 159.

1. *pinnatifida*, Forst. (*Spreng. syst.* 2, *p.* 118;—*Schult.* 7, *p.* 166;—*R. Br. l. c.*;—*Endl. l. c.*;—*Roxb. fl. ind.* 2, *p.* 172;—*J. Grah. Cat. B. pl. p.* 230;—*B. Cab. t.* 692.—T. pinnatifolia, *Gartn. fr.* 1, *p.* 43, *t.* 14, *f.* 2, excl. syn. Rheed. and Rumph. 5, t. 12;—*Rumph.* 5, *t.* 114.) ♃. Tropical New Holland. Otaheite. Moluccas. Worlee and Parell Hills, Bombay. Throughout the Concans. Madagascar. Fl. smallish, pale green. June, July and August; fr. Oct. *Root* intensely bitter when raw, but yielding a great quantity of white fæcula, of which the best flower for confectionary, puddings, &c., is made. (*Roxb.*) In the Islands of the South Sea, where grain of every kind disappears, its place is partly supplied by Tacca pinnatifida. (*Schouw.*)
2. *lævis*, Roxb. (*fl. ind.* 2, *p.* 171;—*J. Grah. Cat. B. pl. p.* 230.) ♃. Silhet. The Concans. Fl. largish, of a dark greenish grey violet colour. H. and R. S.; fr. 0.
3. *integrifolia*, Ker. (*B. M.* 36, *t.* 1488;—*Spreng. syst.* 2, *p.* 118;—*Schult. syst.* 7, *p.* 169;—*Roxb. Corom.* 3, *t.* 257.—T. aspera, *Roxb. fl. ind.* 2, *p.* 169.—Ataccia integrifolia, *Presl.*; *Schult. syst.* 8, *p.* 1653.) ♃. Chittagong. Fl. largish, of a greenish-purple and yellow colour, R. S.; fr. C. S.
4. *cristata*, Jack. ♃. Singapore. In 1841, introduced into the Governor General's garden at Barrackpore by Dr. Cantor. Fl.?

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* *T. Rafflesiana*, Jack. ♃. Singapore. Penang.—*T. montana*, Bl. Rumph. 5, t. 115. ♃. Amboyna. Java.

ORDER CCXXXII.—IRIACEÆ. (IRIDACEÆ, Lindl. Nat. Syst. p. 332;—Endl. gen. pl. 1, p. 164.)

THE IRIS TRIBE.

Herbs, or very seldom undershrubs, by Lindl. (adding Phalocallis, Geasine, Nemostylis, Alophia, Trifurcia, and Beatonia) referred to 45 genera. Of these, according to Spreng. syst. B. M. and B. Reg. about 36 species belong to S. America, Mexico, and the W. Indies; 36 to Europe; 16 to N. America (referring Texas to Mexico); 15 to Tauria, Caucasus, and Iberia; 12 to Siberia; 11 to New Holland and Van Diemen's Land; 4 to N. Africa; 3 to Asia Minor; 2 to Persia; 2 to Japan; 2 to the Mascarenhas Islands; 1 to Madagascar; and 1 to China. 300 species have been discovered in S. Africa; (*Harvey*) and 8 in the Himalayas; viz. 6 of *Iris.*; 1 of *Pardanthus*; (also a native of China) and 1 of *Crocus*.

The plants of this order are "more remarkable for their beautiful fugitive flowers, than for their utility. The rhizoma of some of them is slightly stimulating, as the violet-scented *Orris-root*, the produce of Iris florentina. The substance called *Saffron* is the dried stigmas of Crocus sativus; the colouring ingredient is a peculiar principle, to which the name Polychroite has been given. It possesses the remarkable properties of being totally destroyed by the action of the solar rays, of colouring in small quantity a large body of water, and of forming blue and green tints when treated with sulphuric and nitric acid, or with sulphate of iron. DC." (*Lindl.*)

SISYRINCHIUM, L. (*Spreng. syst.* 1, *p.* 127, *No.* 170;—*Endl. o. c. p.* 165; —not R. Br. pr. p. 160, as to the species.)

1. *micranthum*, Cav. (*Diss.* 6, *p.* 345, *t.* 191, *f.* 2;—*Spreng. syst.* 1, *p.* 167;—*B. M.* 47, *t.* 2116.) 4. Peru. Has been cultivated in the garden here for many years without flowering.
2. *luteum*, Fisch. (*Spreng. l. c.* under S. convolutum, Nocc.) 4. Guiana. Introduced in 1841.

LIBERTIA, Spreng. (*Syst.* 1, *p.* 127, *No.* 174;—*Endl. gen. pl.* 1, *p.* 165.)

1. *formosa*, Grah. (*B. M.* 61, *t.* 3294;—*B. Reg.* 19, *t.* 1630.) 4. Island of Chiloe. Has been introduced into H. C. G. Fl. ?

CIPURA, Aubl. (*Endl. gen. pl.* 1, *p.* 165.)

1. *paludosa*, Aubl. (*Guian.* 1, *p.* 38, *t.* 13.—Marica Cipura, *Gmel. syst. nat.* 118.—M. paludosa, *Willd.*; *Spreng. syst.* 1, *p.* 165;—*B. M.* 18, *t.* 646;—*Roxb. H. B. p.* 5.) 4. Moist Meadows. Guiana. Fl. 10 lines pure white, May and June: fr. 0.
2. *Northiana*, Lindl. (Marica Northiana, *Ker.*;—*Spreng. l. c.*;—*B. M.* 18, *t.* 654;—*J. Grah. Cat. B. pl. p.* 214.—Moræa Northiana, *Schneevogt.*;—*B. Repos. t.* 255.—Ferraria elegans, *Salisb. pr. hort. p.* 42.) 4. Island of Raza, near the mouth of Rio Janeiro. Fl. 22 lines, pale sulphur, variegated with blue, and spotted with brownish on a yellow ground, very fragrant, R. S.; fr. 0.

3. *humilis*, Humb. (Marica humilis, *R. and Sch.*;—*Spreng. syst.* 1, *p.* 65.) 4. New Granada. Introduced in 1841.
4. *coerulea*, Lindl. (Marica coerulea, *Ker.*; *B. Reg.* 9, *t.* 713;—*Spreng. l. c.*) 4. Brazil. Introduced in 1841.
5. *Sabiniana*, (Marica Sabiniana, *Lodd. MSS.*) 4. Tropical America. Introduced in 1841.

Vieusseuxia, Roche. (*Spreng. syst.* 1, *p.* 126, *No.* 168;—*Endl. gen. pl.* 1, *p.* 165.)

1. *pavonia*, DC. (*Spreng. syst.* 1, *p.* 166.—Iris pavonia, *L. fil. suppl. p.* 98;—*Jacq. hort. schönbr.* 1, *p.* 6, *t.* 10;—*B. Repos. t.* 364.—Moræa pavonia, *Ker.*; *B. M.* 31, *t.* 1247.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
2. *tripetala*, (V. tripetaloïdes, *DC.*;—*Spr. o. c. p.* 165.—Iris tripetala, *Thunb.*;—*Jacq. ic. rar.* 2, *t.* 224.—Moræa tripetala, *Ker.*; *B. M.* 19, *t.* 732.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

Moræa, L. (*Spreng. syst.* 1, *p.* 126, *No.* 166;—*Endl. gen. pl.* 1, *p.* 165.)

1. *ciliata*, Ker. (*Spreng. syst.* 1, *p.* 163;—*B. M.* β. 27, *t.* 1061.—Iris ciliata, *Thunb.*) 4. C. G. H. Introduced in 1816, and afterwards. Fl. middle-sized, pale blue, with the outer segments yellow at the base, March; fr. 0.
2. *papilionacea*, Ker. (*B. M.* 20, *t.* 750:—*Spreng. l. c.*—Iris papilionacea, *Thunb.*; *Jacq. coll. suppl.* 159, *t.* 3, *f.* 2.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
3. *edulis*, Ker. (*B. M.* 17, *t.* 613;—*Spreng. l. c.*—*Iris edulis*, Thunb.) 4 C. G. H. Introduced in March, 1841, but has not fl. yet.
4. *longiflora*, Ker. (*B. M.* 19, *t.* 712;—*Spreng. l. c.*) 4. C. G. H. Introduced in March, 1841. Has not fl. yet.
5. *ramosa*, Ker. (*B. M.* 20, *t.* 771;—*Spreng. o. c. p.* 164.—Iris ramosa, *Thunb.*—I. ramosissima, *L. suppl. p.* 99.) 4. C. G. H. Introduced in 1821. Fl.?
6. *tristis*, Ker. (*Spreng. l. c.*—Iris tristis, *Thunb.*; *B. M.* 16, *t.* 577.—Moræa sordescens, *Jacq. ic. rar.* 2, *t.* 225.—M. tricolor, *B. Repos. t.* 83.) 4. C. G. H. Introduced in 1816. Fl.?
7. *viscaria*, Ker. (*B. M.* 16, *t.* 587;—*Spreng. l. c.*—Iris viscaria, *Thunb.*) 4. C. G. H. Introduced in March, 1841. Has not fl. yet.
8. *bituminosa*, Ker. (*B. M.* 26, *t.* 1045;—*Spreng. l. c.*—Iris bituminosa, *Thunb.*) 4. C. G. H. Introduced in 1814. Fl.?
9. *Gawleri*, Spreng. (*Syst. index, p.* 462.—M. crispa, *Ker.*; *B. M.* 20, *t.* 759;—*Spreng. syst.* 1, *p.* 164;—not Thunb.—Iris crispa, *Thunb. diss.* 36, *t.* 1, *f.* 1;—*prodr.* 12.) 4. C. G. H. Introduced in 1815. Fl.?

Homeria, Vent. (*Endl. gen. pl.* 1, *p.* 166; under Moræa).

1. *collina*. Swt. (Moræa collina, *Thunb.*;—*Jacq. ic. rar.* 2, *t.* 220;—*B. M.* 26, *t.* 1033;—*Spreng. syst.* 1, *p.* 165.—Sisyrinchium collinum, *Cav.*—Moræa miniata, *B. Repos. t.* 404.) 4. C. G. H. Introduced in 1820. Fl.?

2. *flexuosa*, Swt. (Moræa flexuosa, *L.*;—*B. M.* 19, *t.* 695.—Ixia longifolia, *Jacq. hort. vind.* 3, *p.* 47, *t.* 90.—Sisyrinchium flexuosum, *Spr. syst.* 1, *p.* 167.) 4. C. G. H. Introduced in 1820. Fl. ?

IRIS, L. (*Spreng. syst.* 1, *p.* 126, *No.* 165;—*Endl. gen. pl.* 1, *p.* 166.)

1. *persica*, L. (*Spreng. syst.* 1, *p.* 159;—*B. M.* 1, *t.* 1;—*J. Grah. Cat. B. pl. p.* 214.—Xiphium persicum, *Mill. dict.*) *The Persian bulbous Fleur-de-luce.* 4. Persia. Introduced in 1817. Fl. ?
2. *juncea*, Poir. (*Spreng. l. c.*;—*Desf. atl. p.* 39, *t.* 4.) 4. N. Africa. Introduced in March, 1841; but has not fl. yet.
3. *lusitanica*, Ker. (*B. M.* 18, *t.* 679;—*Spreng. syst.* 1, *p.* 159.) 4. Portugal. Fl. large, pale yellow, variegated with bright yellow and purple, H. S. but rare; fr. 0.
4. *Xiphium*, L. (*Spreng. l. c.*—*B. M.* 18, *t.* 686;—*Roxb. H. B. p.* 5.) 4. Spain. Portugal. Fl. large, blue-violet, variegated with deep yellow, sweet-scented, H. S. but rare; fr. 0.
5. *xiphioïdes*, Ehrh. (*Spreng. l. c.*;—*B. M.* 18, *t.* 687.) 4. Spain. Fl. larger than *No.* 3, purple, variegated with blue and yellow, scentless, H. S. but rare; fr. 0.
6. *tenuifolia*, Pall. (*Spreng. syst.* 1, *p.* 160.) 4. Banks of the Wolga. Siberia. Introduced in 1818. Fl. ?
7. *ventricosa*, Pall. (*Spreng. l. c.*) 4. Siberia. Introduced in 1820. Fl. ?
8. *graminea*, Bauh. (*Spreng. l. c.*;—*Jacq. austr.* 1, *p.* 5, *t.* 2;—*B. M.* 18, *t.* 781.) 4. Austria. Introduced in 1818. Fl. ?
9. *verna*, Pursh. (*Spreng. l. c.*) 4. Virginia. Introduced in 1819. Fl. ?
10. *prismatica*, Pursh. (*Spreng. l. c.*;—*B. M.* 37, *t.* 1504.) 4. N. America. Introduced in 1819. Fl. ?
11. *sibirica*, L. (*Spreng. l. c.*;—*B. M.* 2, *t.* 50.) 4. Germany. Switzerland. Dauphiny. Siberia. Introduced in 1818. Fl. ?
12. *moræoïdes*, Ker. (*Spreng. syst.* 1, *p.* 160.—Moræa iridioïdes, *L.*; *Lam. enc.* 4, *p.* 274, *t.* 31, *f.* 1;—*B. M.* 19, *t.* 693;—M. irioides, *Gärtn. fr.* 1, *p.* 40, *t.* 13, *f.* 2.—Iris compressa, *Thunb.*) 4. C. G. H. Fl. largish, white, scentless, H. S.; fr. 0.
13. *Pseudacorus*, L. (*Spreng. l. c.*;—*E. B.* 9, *t.* 578.) 4. Ditches, pools and margins of rivers in Europe. Fl. large, yellow, the larger petals pencilled with dark purple, H. S. but rarely; fr. 0.
14. *versicolor*, L. (*Spreng. l. c.*;—*B. M.* 1, *t.* 21.) 4. Virginia. Maryland. Pennsylvania. Introduced in 1818. Fl. ?
15. *cuprea*, Pursh. (*Spreng. l. c.*—Iris fulva, *Ker.*; *B. M.* 36, *t.* 1496.) 4. New Orleans. Fl. 3 inches, of a tawny or copper-colour, with purple veins, scentless. H. S. but rare; fr. 0.
16. *virginica*, L. (*Spreng. syst.* 1, *p.* 161;—*Jacq. ic. rar.* 2, *t.* 223;—*B. M.* 19, *t.* 703.) 4. Virginia. Carolina. Introduced in 1818. Fl. ?
17. *spuria*, L. *Spreng. l. c.*—I. halophila, *B. M.* 22, *t.* 875.) 4. Meadows of Europe, Fl. large, deep-blue. H. S., but rare; fr. 0.

18. *Güldenstädtiana*, Lepech. (*Spreng. l. c.*—I. ochroleuca, *L.*;—*B. M.* 2, *t.* 61.) 4. Carniolia. Introduced in 1818. Fl.?
19. *notha*, Bieb. (*Spreng. l. c.*—I. spuria, δ. halophila, *B. M.* 28, *t.* 1131.) 4. Caucasus. Introduced in 1819. Fl.?
20. *spathulata*, Lam. (I. spuria, *B. M.* 2, *p.* 58.) 4. Wet meadows of Germany. Introduced in 1817. Fl.?
21. *desertorum*, Güldenst. (I. spurea ε. desertorum, *B. M.* 37, *t.* 1514.) 4. Russia. Has been cultivated here since 1817, without flowering.
22. *ochroleuca*, Bieb. (I. spuria ρ. stenogyna, *B. M.* 37, *t.* 1515.) 4. Europe. Caucasus. Introduced in 1818. Fl.?
23. *germanica*, L. (*Spreng. syst.* 1, *p.* 161. excl. syn.—*B. M.* 18, *t.* 670.) 4. Europe. Introduced in 1820, but has not fl. since.
24. *florentina*, L. (*Spreng. l. c.*;—*B. M.* 18, *t.* 671;—*Roxb. H. B. p.* 5.) 4. Italy and other parts of S. Europe. Grows plentifully on the walls of Florence. Fl. very large, greyish-white, outer segments with a somewhat bluer tint; sides of the ungues with brownish or greenish-yellow veins, H. S.; fr. 0. The dried *root*, formerly used in medicine, is now confined to the manufactory of the perfumer, to whom it is known by the name of *Orris* or *Orris-root*, being used to give to certain articles, such as hair-powder, the scent of violets. (*Ker.*)
25. *pallida*, Lam. (*Spreng. l. c.*;—*B. M.* 18, *t.* 685.—I. odoratissima, *Jacq. hort. schönbr.* 1, *p.* 5, *t.* 9.) 4. Italy. Greece. Fl. very large, pale blue, suffused with a purplish tint, having a strong scent resembling that of Elder-flowers, H. S. but very rare; fr. 0.
26. *squalens*, L. (*Spreng. o. c. p.* 162; excl. syn.;—*B. M.* 21, *t.* 787.) 4. S. Europe. Introduced in 1818. Fl.?
27. *lurida*, Ait. (*Hort. Kew.* 1, *p.* 68;—*B. M.* 18, *t.* 669.) 4. S. Europe. Fl. large, purplish-blue, variegated with yellow and brown, somewhat sweet-scented, H. S.; but rare.
28. *dichotoma*, Pall. (*Spreng. syst.* 1, *p.* 162;—*B. Reg.* 3, *t.* 28, 246.) 4. Siberia. Introduced in 1818. Fl.?
29. *subbiflora*, Brot. (*fl. lusit.* 1, *p.* 50;—*B. M.* 28, *t.* 1130,) 4. Neighbourhood of Lisbon. Introduced in 1819. Fl.?
30. *chinensis*, Curt. (*B. M.* 11, *t.* 373;—*Spreng. syst.* 1, *p.* 162;—*Roxb. fl. ind.* 1, *p.* 170; *ed. Carey*, 1, *p.* 174.) 4. China. Fl. large, lilac, pencilled with yellow, fragrant, H. S.; fr. 0.
31. *susiana*, L. (*Spreng. l. c.*;—*B. M.* 3, *t.* 91;—*Roxb. H. B. p.* 5.) 4. Persia. Fl. very large, pale-grey, pencilled with brown, H. S.; but rare; fr. 0.
32. *nepalensis*, Wall. (*Cat.*;—*Spreng. c. p. p.* 24;—*B. Reg.* 10, *t.* 818;—*Royl. ill. t.* 90, *f.* 2.) 4. Nepal. Kemaon. Has been introduced in H. C. G. Fl.?
33. *variegata*, L. (*Spreng. syst.* 1, *p.* 162;—*B. M.* 1, *t.* 16.) 4. Hilly pastures of Hungary. Introduced in 1819. Fl.?

34. *hungarica*, Kit. (*Spreng. l. c.*) 4. Hungary. Introduced in 1840, but has not fl. yet.
35. *pumila*, L. (*Spreng. syst.* 1, *p.* 163;—*B. M.* 1. *t.* 9.) 4. Germany. Hungary. Introduced in 1815. Fl.?
36. *lutescens*, Lam. (*Spreng. l. c.*;—*B. M.* 55, *t.* 2861.) 4. Germany. France. Introduced in 1822. Fl.?

HERBERTIA, Swt. (*Endl. gen. pl.* 1, *p.* 166.)

1. *pulchella*, Swt. (*fl. gard. t.* 222.) 4. Chile. Introduced in 1841. Has not fl. yet.

CYPELLA, Herb. (*End. gen. pl.* 1, *p.* 166.)

1. *Herbertii*, Herb. (Tigridia Herbertii, *Sims.*; *B. M.* 52, *t.* 2599.—Moræa Herbertii, *Lindl.*;—*B. Reg.* 11, *t.* 949;—*Spr. c. p. p.* 24.) 4. Buenos Ayres. Introduced in August, 1841. Has not fl. yet.

TIGRIDIA, Juss. (*Spreng. syst.* 1, *p.* 127, *No.* 175;—*Endl. gen. pl.* 1, *p.* 166.)

1. *Pavonia*, Juss. (*Spreng. syst.* 1, *p.* 169;—*J. Grah. Cat. B. pl. p.* 214.—Ferraria Tigridia, *Sims.*;—*B. M.* 15, *t.* 532.—F. Pavonia, *L. fil.*—Moræa Pavonia, *Thunb.*) 4. Mexico. Peru. Fl. very large, bright-scarlet and yellow, dark purple spotted, July and Aug.; fr. 0.

FERRARIA, L. (*Spreng. syst.* 1, *p.* 127, *No.* 176;—*Endl. gen. pl.* 1, *p.* 166.)

1. *undulata*. L. (*Spreng. syst.* 1, *p.* 169;—*B. M.* 4, *t.* 144.) 4. C. G. H. Fl. largish, very pale-yellow, with brownish curled margins, Feb. and March; fr. 0.

PARDANTHUS, Ker. (*Spreng. syst.* 1, *p.* 127, *No.* 169;—*Endl. gen. pl.* 1, *p.* 166.)

1. *chinensis*, Ker. (*Spreng. syst.* 1, *p.* 166;—*J. Grah. Cat. B. pl. p.* 214.—Ixia chinensis, *L.*;—*Gartn. fr.* 1, *p.* 40, *t.* 13, *f.* 3;—*Lour.*—Moræa chinensis, *Thunb.*;—*Roxb. fl. ind.* 1, *p.* 170; *ed. Carey*, 1, *p.* 174.—Belamcanda chinensis, *DC.*—Ferraria crocea, *Salisb. pr. hort.* 41, *No.* 1;—*Rheed.* 11, *t.* 37.) দশ বাঁহু *Dus-bahoo.* 4. China. Japan. Cochin China. Nepal. Common in gardens. Fl. 10-12 lines, below bright-yellow, above dull-orange, with scarlet dots, scentless, R. S.; fr. C. S,

ARISTEA, Soland. (*Spreng. syst.* 1, *p.* 126, *No.* 161;—*Endl. gen. pl.* 1. *p.* 167.)

1. *capitata*, Ker. (*B. M.* 17, *t.* 605.—A. major, *Andr. B. Repos. t.* 160;—*Spreng. syst.* 1, *p.* 158.—A. coerulea, *Vahl.*—A. capitata, *Ker.*; *B. M.* 17, *t.* 605.—Gladiolus capitatus, *L.*—Moræa coerulea, *Thunb.*—Ixia thyrsiflora, *Roche.*) 4. C. G. H. Introduced in 1820. Fl.?

WITSENIA, Thunb. (*Spreng. syst.* 1, *p.* 125, *No.* 147;—*Endl. gen. pl.* 1, *p.* 167.)

1. *corymbosa*, Ker. (*B. M.* 23, *t.* 895;—*Spreng. syst.* 1, *p.* 147.) 4. C. G. H. Introduced in March, 1841. Has not fl. yet.

PATERSONIA, R. Br. (*pr. p.* 303;—*Spreng. syst.* 1, *p.* 127, *No.* 172;—*Endl. gen. pl. p.* 167.)

1. *glauca*, R. Br. (*o. c. p.* 304;—*Spreng. syst.* 1, *p.* 168;—*B. M.* 53, *t.* 2677.) 4. Port Jackson. Van Diemen's Land. Introduced in 1841.

GALAXIA, Thunb. (*Spreng. syst.* 1, *p.* 127, *No.* 171;—*Endl. gen. pl.* 4, *p.* 167.)

1. *ovata*, Thunb. (*Spreng. syst.* 1, *p.* 167;—*Cav.* 6, *p.* 341, *t.* 189, *f.* 2.—*Jacq. ic. rar.* 2, *t.* 291;—*B. Repos. t.* 94;—*B. M.* 30, *t.* 1208. *a.*—G. grandiflora, *B. Repos. t.* 164.—Ixia Galaxia, *L. fil.*) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
2. *graminea*, Thunb. (*Spreng. o. c. p.* 168;—*Cav.* 6, *p.* 341, *t.* 189, *f.* 3;—*Jacq. coll.* 2, *p.* 366, *t.* 18, *f.* 2;—*B. M.* 32, *t.* 1292.—Ixia fugacissima, *L. fil.*) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

OVIEDA, Spreng. (*syst.* 1, *p.* 125, *No.* 148;—*Endl. gen. pl.* 1, *p.* 167; not L.)

1. *corymbosa*, Spreng. (*syst.* 1, *p.* 147.—Lapeyrousia corymbosa, *Ker.*; *B. M.* 16, *t.* 595.—Ixia corymbosa, *L.*;—*Jacq. ic. rar.* 2, *t.* 288.—I. crispifolia, *B. Repos. t.* 35.) 4. C. G. H. Introduced in March, 1841. but has not fl. yet.

BABIANA, Ker. (*Spreng. syst.* 1, *p.* 126, *No.* 157;—*Endl. gen. pl.* 1, *p.* 168.)

1. *Thunbergii*, Ker. (*Spreng. syst.* 1, *p.* 155.—Antholyza plicata, *Thunb.*) 4. C. G. H. Introduced in 1816. Fl.?
2. *tubiflora*, Ker. (*Spreng. l. c.*—B. tubiflora, var. *a. B. M.* 22, *t.* 847.—Gladiolus tubiflorus, *L.*;—*Jacq. ic. rar.* 2, *t.* 266.) 4. C. G. H. Introduced in 1829. Fl.?
3. *spathacea*, Ker. (*B. M.* 17, *t.* 638;—*Spreng. l. c.*—Gladiolus spathaceus, *Thunb.*) 4. C. G. H. Introduced in 1826. Fl.?
4. *sambucina*, Ker. (*B. M.* 26, *t.* 1019;—*Spreng. l. c.*—Gladiolus sambucinus, *Jacq.*) 4. C. G. H. Introduced in 1826. Fl.?
5. *sulphurea*, Ker. (*B. M.* 26, *t.* 1053;—*Spreng. l. c.*—Gladiolus sulphureus, *Jacq. ic. rar.* 2, *t.* 239.—G. plicatus, *B. Repos. t.* 268, not Thunb.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
6. *plicata*, Ker. (*B. M.* 16, *t.* 576;—*Spreng. l. c.*—Gladiolus fragrans, *Jacq. hort. schönbr. p.* 7, *t.* 14;—G. plicatus, *Thunb.*, not L. nor Jacq.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
7. *stricta*, Ker. (*B. M.* 17, *t.* 621;—*Spreng. l. c.*—Gladiolus strictus, *Ait.*—G. plicatus, *L.*; excl. syn.—Ixia villosa, *Jacq. ic. rar. t.* 284.—I. plicata, *L. amoen. acad.* excl. syn.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
8. *villosa*, Ker. (*B. M.* 16, *t.* 583;—*Spreng. l. c.*—Ixia villosa, *Ait.* not Jacq.—I. punicea, *Jacq. ic. rar.* 2, *t.* 287.—I. flabelliformis, *Salisb. prodr. hort.* 37, *No.* 23.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

9. *rubro-cyanea,* Ker. (*B. M.* 12, *t.* 410;—*Spreng. syst.* 1, *p.* 156.—Ixia rubro-cyanea, *Jacq. ic. rar.* 2, *t.* 285.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
10. *disticha,* Ker. (*B. M.* 17, *t.* 626;—*Spreng. l. c.*—Gladiolus plicatus, *Jacq. ic. rar.* 2, *t.* 237, not of others.) 4. C. G. H. Introduced in 1816. Fl.?
11. *angustifolia,* Ker. (Babiana stricta, *a. B. M.* 17, *t.* 637.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
12. *ringens,* Ker. Herb. (*B. Reg.* 1838, *app. p.* 19.—*Spreng. syst.* 1, *p.* 155.—Antholyza ringens, *L.*) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

GLADIOLUS, Tournef. (*Spreng. syst.* 1, *p.* 126, *No.* 155;—*Endl. gen. pl.* 1, *p.* 168.)

1. *edulis,* Burch. (*Spreng. syst.* 1, *p.* 151;—*B. Reg.* 2, *t.* 169.) 4. S. Africa. Introduced in March, 1841, but has not fl. yet.
2. *tristis,* L. (*Spreng. l. c.;—B. M.* 8, *t.* 272.) 4. C. G. H. Fl. large, sulphur-coloured, shaded in particular parts, especially underneath, with very fine pencillings, Feb. and March; fr. 0.
3. *gracilis,* Jacq. (*ic. rar.* 2, *t.* 246;—*Spreng. l. c.;—B. M.* 16, *t.* 562.) 4. C. G. H. Fl. largish, pale blue, Feb. and March; fr. 0.
4. *recurvus,* L. (*Spreng. l. c.—B. M.* 16, *t.* 578, not L. fil. nor Thunb.—G. carinatus, *Ait.*—G. punctatus, *Jacq. ic. rar.* 2, *t.* 247.—G. ringens, *B. Repos. t.* 27, and *t.* 227.) 4. C. G. H. Fl. largish, having a yellow ground, so thickly beset with minute blue dots, as to give the appearance of a uniform blue, of which colour they really at last become, smelling strongly like violets or Orris-root, Feb. and March; fr. 0.
5. *angustus,* L. (*Spreng, l. c.;—Jacq. ic. rar.* 2;—*B. M.* 17, *t.* 602.) 4. C. G. H. Fl. largish, outside crimson, inside pale-yellow, Feb. and March; fr. 0.
6. *tenellus,* Jacq. (*ic. rar.* 2, *t.* 248;—*Spreng. l. c.*) 4. C. G. H. Introduced in 1822. Fl.?
7. *flexuosus,* Thunb. (*Diss. de. Glad. No.* 2, *t.* 1, *f.* 1;—*Spreng. syst.* 1, *p.* 152.) 4. C. G. H. Introduced in 1821. Fl.?
8. *Watsonia,* Thunb. (*Jacq. ic. rar.* 2, *t.* 333;—*Spreng. l. c.;—B. M.* 13, *t.* 450.) 4. C. G. H. Fl. largish, deep red, Feb. and March; fr. 0.
9. *Milleri,* Ker. (*B. M.* 17, *t.* 632;—*Spreng. l. c.*) 4. C. G. H. Fl. large, pale-yellow, after first having been quite white, Feb. and March; fr. 0.
10. *viperatus,* Ker. (*B. M.* 18, *t.* 688;—*Spreng. l. c.*—G. alatus, *Thunb.;—Jacq. ic. rar.* 2, *t.* 259, not L.—G. orchidiflorus, *B. Repos. t.* 241.) 4. C. G. H. Fl. largish, greenish-grey, with something of a livid hue and brown stripes, fragrant, Feb. and March; fr. 0.
11. *namaquensis,* Ker. (*B. M.* 16, *t.* 592;—*Spreng. l. c.;—J. Grah. Cat. B. pl. p.* 214.—G. galeatus, *B. Repos. t.* 122, excl. syn.) 4. C. G. H. Introduced in 1815. Fl.?

12. *alatus*, L. (*Spreng. l. c.* not Ait. nor Jacq.—*B. M.* 16, *t.* 586.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
13. *hirsutus*, L. (*Spreng. l. c.*—G. hirsutus, β. *B. M.* 16, *t.* 574;—*Jacq. ic. rar*, 2, *t.* 250.—G. roseus, *B. Repos. t.* 11.) 4 C. G. H. Introduced in 1818. Fl.?
14. *brevifolius*, Jacq. (*Fragm.* 3, *p.* 12, *t.* 2, *f.* 3.—G. hirsutus β. *B. M.* 19, *t.* 727.—G. carneus, *B. Repos. t.* 240.) 4. C. G. H. Fl. middle-sized, deep rose-coloured, marked with dark crimson lines. Fl. Feb. and March; fr. 0.
15. *versicolor*, Andr. (*B. Repos. t.* 19;—*Spreng. syst.* 1, *p.* 152;—*B. M.* 16, *t.* 556, γ.) 4. C. G. H. Introduced in 1815. Fl.?
16. *carneus*, Jacq. (*ic. rar. t.* 255;—*Spreng. l. c.*;—*B. M.* 16, *t.* 591.—G. cuspidatus, *Andr.*;—*B. Repos. t.* 147, not L.) 4. C. G. H. Introduced in 1824. Fl.?
17. *cuspidatus*, L. (*Spreng. l. c.*;—*B. M.* 16, *t.* 582;—*Jacq. ic. rar.* 2, *t.* 257;—*B. Repos. t.* 219.—G. undulatus, *L. mant.*) 4. C. G. H. Introduced in 1819. Fl?
18. *blandus*, Ait. (*Spreng. l. c.*;—*B. M.* 17, *t.* 625;—*B. Repos. t.* 99, and *t.* 188.—G. albidus, *Jacq. ic. rar.* 2, *t.* 256.—G. carneus, *Roche.*) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
19. *undulatus*, Jacq. (*ic. rar. t.* 251;—*Spreng. syst.* 1, *p.* 153;—*B. M.* 18, *t.* 647.) 4. C. G. H. Fl. largish, pale-yellow, with the middle nerve of its segment somewhat crimson, Feb. and March; fr. 0.
20. *floribundus*, Jacq. (*ic. rar.* 2, *t.* 254;—*Spreng. l. c.*;—*B. M.* 17, *t.* 610.—G. grandiflorus, *B. Repos. t.* 118.) 4. Introduced in 1821. Fl.?
21. *cardinalis*, Curt. (*B. M.* 4, *t.* 135;—*Spreng. l. c.*) 4. C. G. H. Introduced in 1824. Fl.?
22. *communis*, L. (*Spreng. l. c.*;—*B. M.* 3, *t.* 86.) *Common Corn-flag.* 4. Meadows of Europe. Fl. large, rose-coloured, Feb. and March; fr. April.
23. *psittacinus*, Hook. (*B. M.* 57, *t.* 3032;—*B. Reg.* 17, *t.* 1442.) 4. C. G. H. Introduced in March 1841, but has not fl. yet.
24. *byzantinus*, Mill. (*Spreng. syst.* 1, *p.* 153;—*B. M.* 22, *t.* 874.) 4. Neighbourhood of Constantinople. Introduced in 1822. Fl.?
25. *hyalinus*, Jacq. (*ic. rar.* 2, *t.* 242;—*Spreng. l. c.*) 4. C. G. H. Introduced in 1818. Fl.?
26. *segetum*, Ker. (*B. M.* 19, *t.* 719.—Sphærospora segetum, *Carey's MSS.*) 4. S. Europe. Fl. large, purple, Feb, and March; fr. April.

Synnotia, Sweet. (*Endl. gen. pl.* 1, *p.* 168, under Gladiolus.)

1. *bicolor*, Sweet. (Ixia bicolor, *Ker.*; *B. M.* 15, *t.* 548.—Sparaxis bicolor, *Ker.*;—*Spreng. syst.* 1, *p.* 150.—Gladiolus bicolor, *Thunb.*;—*Jacq. ic. rar.* 2, *t.* 240.) 4. C. G. H. Fl. largish, yellow and blue, Feb. and March; fr. 0.

2. *galeata*, Swt. (Sparaxis galeata, *Ker.*—*Spreng. l. c.*—Gladiolus galeatus, *Jacq. ic. rar.* 2, *t.* 258.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

ANISANTHUS, Sweet. (*Endl. gen. pl.* 1, *p.* 168.)

1. *Cunonia*, Sweet. (Antholyza Cunonia, *L.*;—*B. M.* 10, *t.* 343.—Gladiolus Cunonia, *Gärtn. fr.* 1, *p.* 31, *t.* 11, *f.* 4;—*Spreng. syst.* 1, *p.* 152.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

ANTHOLYZA, L. (*Spreng. syst.* 1, *p.* 126, *No.* 160;—*Endl. gen. pl.* 1, *p.* 168.)

1. *æthiopica*, L. (*Spreng. syst.* 1, *p.* 157;—*B. M.* 16, *t.* 561;—*J. Grah. Cat. B. pl. p.* 214.—A. ringens, *B. Repos. t.* 32.—Gladiolus æthiopicus, *Corn. canad. t.* 79.) 4. C. G. H. Has been cultivated here for the last 12 years, without fl. or loosing its leaves. Introduced again in March, 1841.

WATSONIA, Mill. (*Spreng. syst.* 1, *p.* 126, *No.* 154;—*Endl. gen, pl.* 1, *p.* 168.)

1. *spicata*, Ker. (*Spreng. syst.* 1, *p.* 150.—Gladiolus spicatus, *L.*—Ixia spicata, *Willd.*—I. fistulosa, *Sims.*; *B. M.* 15, *t.* 523.) 4. C. G. H. Fl. small, greenish-white rose-coloured, Feb. and March; fr. 0.
2. *plantaginea*, Ker. (*B. M.* 16, *t.* 553;—*Spreng. l. c.*—Ixia plantaginea, *Ait.*—I. triticea, *Burm. prodr. fl. cap.* 1.) 4. C. G. H. Fl. small, blue, 3 of the segments red-tipped, Feb. and March; fr. 0.
3. *marginata*, Ker. (*Spreng. l. c.*;—*B. M.* 17, *t.* 608.—Gladiolus marginatus, *Thunb.*;—*Roxb. H. B. p.* 25.) 4. C. G. H. Fl. largish rose-coloured, Feb. and March; fr. 0.
4. *rosea*, Herb. Banks (*Ker.*; *B. M.* 27, *t.* 1072;—*Spreng. l. c.*—Gladiolus pyramidatus, *Andr. B. Repos. t.* 335.) 4. C. G. H. Fl. large, rose-coloured. Feb. and March; fr. 0.
5. *brevifolia*, Ker. (*B. M.* 17, *t.* 601;—*Spreng. l. c.*—Antholyza spicata, *Andr. B. Repos. t.* 56.) 4. C. G. H. Fl. largish, tawny, Feb. and March; fr. 0.
6. *fulgida*, Salisb. (W. iridifolia, β. fulgens, *B. M.* 17, *t.* 600.—Antholyza fulgens, *B. Repos. t.* 192,) 4. C. G. H. Introduced in March 1841, but has not fl. yet.
7. *iridifolia*, Ker. (*Spreng. l. c.* excl. syn. B. Repos.—Gladiolus iridifolius, *Jacq. ic. rar.* 2, *t.* 234.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
8. *Meriana*, Mill. (*Spreng. l. c.*;—Antholyza Meriana, *L.*; *B. M.* 12, *t.* 418.) 4. C. G. H. Introduced in 1825. Fl.?
9. *humilis*, Mill. (*Ker.*; *B. M.* 17, *t.* 631.—Gladiolus laccatus, *Jacq. ic. rar.* 2, *t.* 232.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
10. *aletroïdes*, Ker. (*Spreng. syst.* 1, *p.* 150.—Gladiolus aletroïdes, *Vahl.*—Antholyza Merianella, *L.*; *B. M.* 13, *t.* 441, excl. syn.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

11. *roseo-alba*, Ker. (*B. M.* 15, *t.* 537;—*Spreng. syst.* 1, *p.* 151.—Gladiolus roseo-albus, *Jacq. hort. schönbr.* 1, *p.* 7, *t.* 13.) 4. C. G. H. Introduced in 1819. Fl. ?

Sparaxis, Ker. (*Spreng. syst.* 1, *p.* 126, *No.* 153;—*Endl. gen. pl.* 1, *p.* 168.)

1. *tricolor*, Ker. (*Spreng. syst.* 1, *p.* 149.—Ixia tricolor, *Curt.*; *B. M.* 11, *t.* 381.) 4. C. G. H.
2. *grandiflora*, Ker. (*Spreng. l. c.*—Ixia grandiflora, *Roche*;—*Ker.*; *B. M.* 15, *t.* 541.) 4. C. G. H. Fl. large, purple, Feb. and March; fr. 0.

β. *striatiflora*, Ker. (*B. M.* 20, *t.* 779. β.) Fl. outside purple-streaked, inside pale-yellowish, at base purple-spotted, Feb. and March.

γ. *Liliago*, Ker. (*B. Reg.* 3, *t.* 258.) Introduced in March, 1841, but has not fl. yet.

δ. *alba*, Fl. white, Feb. and March.

3. *bulbifera* Ker. (*Spreng. l. c.*—Ixia bulbifera, *L.*—*B. Repos. t.* 48;—*B. M.* 15, *t.* 545.) 4. C. G. H. Fl. largish, bright-yellow. Feb. and March; fr. 0.
4. *fragrans*, Ker. (*Spreng. l. c.*—Ixia fragrans, *Jacq. ic. rar.* 2, *t.* 272.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
5. *pendula*, Ker. (*Spreng. l. c.*—*B. Reg.* 16, *t.* 1360.—Ixia pendula, *Thunb.*—Watsonia palustris, *Pers.*) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
6. *reflexa*, Villet's MSS. 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

Montbretia, DC. (*Endl. gen. pl.* 1, *p.* 168.—Tritonia, *Ker.*—*Spreng. syst.* 1, *p.* 126, *No.* 156.)

1. *viridis*, (Tritonia viridis, *Ker.*; *B. M.* 31, *t.* 1275;—*Spreng. syst.* 1, *p.* 154.—Gladiolus viridis, *Ait.*) 4. C. G. H. Introduced in 1819. Fl. ?
2. *crispa*, (Tritonia crispa, *Ker.*; *B. M.* 18, *t.* 678;—*Spreng. l. c.*—Gladiolus crispus, *L. suppl.*) 4. C. G. H. Introduced in 1818. Fl. ?
3. *rosea*, (Tritonia rosea, *R. Br.*;—*Srpeng. l. c.*—T. capensis, *B. M.* 17, *t.* 618.—Gladiolus roseus, *Jacq. ic. rar.* 2, *t.* 261.) 4. C. G. H. Introduced in 1818. Fl. ?
4. *longiflora*, (Tritonia longiflora, *Ker.*;—*Spreng. l. c.*—Ixia longifolia, *Ait.*;—*B. M.* 8, *t.* 256.—Gladiolus longiflorus, *L. fil. suppl.*) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
5. *striata*, (Tritonia striata, *Ker.*;—*Spreng. l. c.*—Gladiolus striatus, *Jacq.*) 4. C. G. H. Introduced in 1819. Fl. ?
6. *lineata*, (Tritonia lineata, *Ker.*;—*Spreng. l. c.*—Gladiolus lineatus, *Salisb.*;—*B. M.* 14, *t.* 487.) 4. C. G. H. Fl. large, straw-coloured, more or less tinged with orange, Feb. and March; fr. 0.
7. *securigera*, Redout. (Tritonia securigera, *Ker.*;—*Spreng. l. c.*—Gladiolus securiger, *Ait.*;—*B. M.* 11, *t.* 383.) 4. C. G. H. Fl. largish, yellow, tinged with orange, Feb. and March; fr. 0.

8. *squalida*, (Tritonia squalida, *Ker.*;—*B. M.* 16, *t.* 581;—*Spreng. l. c.*—Ixia squalida, *Ait.*) 4. C. G. H. Introduced in 1820. Fl. ?
9. *crocata*, (Tritonia crocata, *Ker.*—Ixia crocata, *Thunb.*;—*B. M.* 6, *t.* 184.) 4. C. G. H. Fl. large, deep-orange, with a transparent base, Feb. and March; fr. 0.
10. *fenestrata*, (Tritonia fenestrata, *Ker.*;—*B. M.* 19, *t.* 704;—*Spreng. l. c.*—Ixia fenestrata, *Jacq. ic. rar.* 2, *t.* 289.) 4. C. G. H. Fl. large, bright vermillion, varying to a deep-orange colour, Feb. and March; fr. 0.
11. *miniata*, (Tritonia miniata, *Ker.*; *B. M.* 17, *t.* 609;—*Spreng. l. c.*—Ixia miniata, *Jacq. schönbr.* 1, *p.* 10, *t.* 24.) 4. C. G. H. Fl. largish, yellow-orange, Feb. and March; fr. 0.
12. *deusta*, (Tritonia deusta, *Ker.*;—*B. M.* 17, *t.* 622.—*Spreng. l. c.*—Ixia deusta, *Ait.*) 4. C. G. H. Fl. large, copper-coloured, Feb. and March; fr. 0.
13. *concolor*, (Tritonia concolor, *Swt.*—T. longiflora, *B. M.* 37, *t.* 1502, γ.) 4. C. G. H. Introduced in 1816. Fl. ?
14. *tenuiflora*, (Tritonia tenuiflora, *Ker.*;—T. longiflora, β. *B. M.* 37, *t.* 1502.) 4. C. G. H. Introduced in 1819. Fl. ?
15. *capensis*, (Tritonia capensis, Ker. β. *B. M.* 37, *t.* 1531.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

Ixia, L. (*Spreng. syst.* 1, *p.* 126, *No.* 158;—*Endl. gen. pl.* 1, *p.* 169.)

1. *capillaris*. L. (*Spreng. syst.* 1, *p.* 156;—*B. M.* 17, *t.* 617.) 4. C. G. H. Fl. middle-sized, lilac, Feb. and March; fr. 0.
2. *aulica*, Ait. (*Spreng. l. c.*—I. capillaris. γ. aulica, *B. M.* 25, *t.* 1013.) 4. C. G. H. Fl. middle-sized, outside rose-coloured, inside crimson, Feb. and March; fr. 0.
3. *flexuosa*, L. (*Spreng. l. c.*;—*B. M.* 17, *t.* 624.—I. polystachia, *Burm. fl. cap. prodr.* 1, var. maculata more Ixiæ maculatæ.—I. capitata, *B. Repos. t.* 232.) 4. C. G. H. Fl. middle-sized, white, with red streaks, Feb. and March; fr. 0.
   β. *rubriflora*. Fl. red, Feb. and March.
   γ. *violacea*. Fl. violet, frequently stained as in Ixia maculata, Feb. and March.
4. *aristata*, Thunb. (*Spreng. l. c.*;—*B. M.* 16, *t.* 589, not Ait. nor Willd.) 4. C. G. H. Fl. largish, pale rose-coloured, with deep rosy streaks, Feb. and March; fr. 0.
5. *monadelpha*, Roche. (*Spreng. l. c.*;—*B. M.* 17, *t.* 607.—I. columnaris, *Salisb.*;—*Andr.*; *B. Repos. t.* 203, 211, 213, 250.) 4. C. G. H. Fl. large, varying in colour from bluish-purple to purple, yellow, &c., often variegated, and generally having a large, round stain at the base more or less obsolete, and of various tints, Feb. and March; fr. 0.
6. *columellaris*, Ker. (*B. M.* 17, *t.* 630;—*Spreng. l. c.*) 4. C. G. H. Fl. middle-sized, outside dingy purplish-white, inside very brilliant and iridescently variegated in circles, with a dark spot at the base of the

limb, having a strong scent like that of Tongo Bean, Feb. and March; fr. 0.

7. *maculata*, L. (*Spreng. l. c.*;—*B. M.* 21, *t.* 789. β. *amethystina*.) 4. C. G. H. Fl. largish, pale-blue, with a dark spot at the base of the limb, Feb. and March; fr. 0.

β. *ochroleuca*, Ker. (*B. M.* 31, *t.* 1285.) 4. C. G. H. Fl. large, pale-yellow, with brownish spot at the base of the limb, Feb. and March.

8. *crateroïdes*, Ker. (*B. M.* 16, *t.* 594;—*Spreng. syst.* 1, *p.* 157.—I. speciosa, *B. Repos. t.* 186.) 4. C. G. H. Fl. largish, outside purplish-red, inside deep-crimson, Feb. and March; fr. 0.

9. *scillaris*, Thunb. (*Spreng. l. c.*;—*B. M.* 15, *t.* 542. *a*.—I. reflexa, *Andr.*; *B. Repos. t.* 14.—I. polystachia, var. *Jacq. coll. suppl.* 159, *t.* 2, *f.* 1.) 4. C. G. H. Fl. middle-sized, deep rose-coloured, each segment with a dark purple spot, Feb. and March; fr. 0.

10. *patens*, Ait. (*Spreng. l. c.*—*B. M.* 15, *t.* 522.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

11. *leucantha*, Jacq. (*ic. rar.* 2, *t.* 278;—*Pers. syn.* 1, *p.* 48.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

12. *conica*, Salisb. (*Spreng. syst.* 1, *p.* 157;—*B. M.* 15, *t.* 539.) 4. Fl. largish, orange-coloured, Feb. and March; fr. 0,

13. *erecta*, Berg. (*Spreng. l. c.*;—*Jacq. schönbr.* 1, *p.* 18;—*B. M.* 17, *t.* 623.—I. polystachya, *L.*;—*B. Repos. t.* 155;—not Jacq.) 4 C. G. H. Fl. middle-sized, before expanding pale-green on the outside, afterwards entirely white, Feb. and March; fr. 0.

14. *viridiflora*, Pers. (*Syn.* 1, *p.* 48.—I. maculata, γ viridis, *B. M.* 16, *t.* 549.) 4. C. G. H. Fl. large, pale-green, with a dark purple spot at the base of the limb, Feb. and March; fr. 0.

HESPERANTHA, Ker. (*Spreng. syst.* 1, *p.* 125, *No.* 150;—*Endl. gen. pl.* 1, *p.* 169.)

1. *falcata*, Ker. (*Spreng. syst.* 1, *p.* 148.—Ixia falcata, *Thunb.*;—*Jacq. ic. rar.* 2, *t.* 276;—*B. M.* 16, *t.* 566;—I. cinnamomea, *B. Repos. t.* 44, not Thunb.) 4. C. G. H. Introduced in 1818. Fl. ?

2. *cinnamomea*, Ker. (*B. M.* 26, *t.* 1054;—*Spreng. l. c.*—Ixia cinnamomea, *Thunb.*) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

3. *pilosa*, Ker. (*B. M.* 36, *t.* 1475;—*Spreng. l. c.*—Ixia pilosa, *Thunb.*) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

GEISSORRHIZA, Ker. (*Spreng. syst.* 1, *p.* 125, *No.* 151.—*Endl. gen. pl.* 1, *p.* 169.)

1. *secunda*, Ker. (*Spreng. syst. l. c.*—Ixia secunda, *Berg.*;—*Jacq. ic. rar.* 2, *t.* 277;—*B. M.* 17, *t.* 597.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

2. *obtusata*, Ker. (*B. M.* 18, *t.* 672;—*Spreng. syst.* 1, *p.* 148.—Ixia obtusata, *Soland. in Herb. Banks.*) 4. C. G. H. Introduced in 1818. Fl. ?

Trichonema, Ker. (*Spreng. syst.* 1, *p.* 126, *No.* 152;—*Endl. gen. pl.* 1, *p.* 169.)

1. *Bulbocodïum*, Ker. (*Spreng. syst.* 1, *p.* 149.—Ixia Bulbocodium, *L.*;—*B. M.* 8, *t.* 265;—*E. B.* 36, *t.* 2549.) 4. Guernsey. France. Italy. Greece. Introduced in 1819. Fl. ?
2. *purpurascens*, Swt. (Ixia purpurascens, *Tenor. fl. neap.* 1, 2.) 4. Italy. Introduced in August, 1841, but has not fl. yet.
3. *cruciatum*, Ker. (*Spreng. syst.* 1, *p.* 149;—*B. M.* 16, *t.* 575.—Ixia cruciata, *Jacq. ic. rar.* 2, *t.* 290.—I. Bulbocodium, var. 7, *Thunb.*) 4. C. G. H. Fl. smallish, deep rose-coloured, Feb. and March, but rare; fr. 0.
4. *roseum*, Ker. (*B. M.* 30, *t.* 1225;—*Spreng. l. c.*—Ixia rosea, *L.*—I. campanulata, *Lam.*) 4. C. G. H. Introduced in 1816. Fl. ?
5. *pudicum*, Ker. (*B. M.* 31, *t.* 1244.—Ixia pudica, *Soland. in. Hb. Banks.*) 4. C. G. H. Introduced in 1817. Fl. ?
6. *chloroleucum*, Ker. (Ixia chloroleuca, *Jacq. ic. rar.* 2, *t.* 272;—*Pers. syn.* 1, *p.* 46.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
7. *caulescens*, Ker. (*B. M.* 34, *t.* 1392.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.
8. *speciosum*, Ker. (*B. M.* 36, *t.* 1476;—*Spreng. syst.* 1, *p.* 149.) 4. C. G. H. Introduced in March, 1841, but has not fl. yet.

Spatalanthus, Swt. (*Loud. hort. brit. p.* 485.)

1. *speciosus*, Swt. (*fl. gard. t.* 300.—Trichonema monadelphum, *Swt.*) 4. C. G. H. Introduced in 1817. Fl. ?

Crocus, Tournef. (*Spreng. syst.* 1, *p.* 125, *No.* 146;—*Endl. gen. pl.* 1, *p.* 169.)

From 1815-20, thirteen species of the genus have been frequently introduced into the garden here from the Liverpool Bot. Gard., but without success. The same was the case with the C. vernus, Willd. introduced into H. C. G. in 1810.

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* *Sisyrinchium plicatum*, Spreng. (Marica plicata, Ker.; B. M. 18, t. 655. 4. W. Indies.—*S. tenuifolium*, Humb.; B. M. 47, t. 2117 and t. 49, t. 2313. 4. Mexico.—*S. striatum*, Cav. (Marica striata, Ker.; B. M. 19, t. 701.) 4. Mexico.—*S. iridifolium*, Humb. (Marica iridifolia, Ker.; B. Reg. 8, t. 646.) 4. Caracas.—*Cipura martinicensis*, Humb. (Iris martinicensis, L.; B. M. 12, t. 416.) 4. W. Indies.—*Marica gracilis*, Herb.; B. M. 66, t. 3713. 4. Brazil.—*Iris tuberosa*, L.; B. M. 15, t. 531. 4. Italy. Greece.—*I. triflora*, Balb. 4. Italy.—*I. foetidissima*, L.; E. B. 9, t. 596. 4. England. France. Spain.—*I. Swertii*, Lam. (I. aphylla. γ. B. M. 22, t. 870.) 4. Portugal ?—*Ferraria antherosa*, Ker.; B. M. 20, t. 751. 4. C. G. H.—*Patersonia sericea*, R. Br.; B. M. 26, t. 1041. 4. Tropical New Holland.—*Bobartia gladiata*, Swt. (Marica gladiata, Ker.; B. Reg. 3, t. 229.) 4

C. G. H.—*Witsenia Maura*, L.; B. Reg. 1, t. 5, 4. C. G. H.—*Anomatheca juncea*, Ker.; 17, t. 606. 4. C. G. H.—*A. cruenta*, Lindl; B. Reg. 16, t. 1369. 4. C. G. H.—*Melasphærula intermedia*, Swt. (M. graminea, B. M. 17, t. 615; not Red.) 4. C. G. H.—*Phalocallis plumbea*, Herb.; B. M. 65, t. 3710. (Cypella plumbea, B. Reg. 1, p. 24.) 4. Valparaiso.—*Diasia graminea*, DC. 4. C. G. H.

ORDER CCXXXIII.—BROMELIACEÆ, Lindl. Nat. Syst. p. 334; Endl. gen. pl. 1, p. 181.

THE PINE-APPLE TRIBE.

Stemless or short stemmed plants, by Lindl. referred to 21 genera. All, without exception, are natives of the continent or Islands of America, whence they have migrated eastwards in such numbers, as to have established themselves as part of the present Flora of the West Coast of Africa, and some parts of the E. Indies. The most remarkable is the Ananas, which is well known for the sweetness and fine aromatic flavour of its fruit. No other species is of the same interest. They are all capable of existing in a dry air without contact with the earth; on which account they are favourites in S. American gardens, where they are suspended in the dwellings or hung to the balustrades of the balconies; situations in which they flower abundantly, filling the air with their fragrance. Ropes are made in Brazil from a species of Bromelia, called Grawatha. *Pr. Max. Trav.* (*Lindl.*)

Ananas, Plum. (*Schult. syst.* 8, *p.* LXXIII. *No.* 1486.—Ananassa, *Lindl.*; *B. Reg.* 13, *t.* 1068. *app.* and *t.* 1381;—*Endl. gen. pl.* 1, *p.* 182.)

1. *sativus*, Schult. (*Syst.* 8, *p.* 1283.—Ananassa sativa, *Lindl. B. Reg.* 13, *t.* 1068, *app.*—Bromelia Ananas, *L.*, *spec*, *p.* 408, excl. δ.—*Willd. spec.* 2, *p.* 7, excl. γ.—*Lam. enc.* 1, *p.* 143, excl. ξ.—*Lour.*;—*Spreng. syst.* 2, *p.* 20;—*Roxb. fl. ind.* 2, *p.* 116;—*J. Grah. Cat. B. pl. p.* 222;—*B. M.* 38, *t.* 1554;—*Rheed* 11, *t.* 1, 2;—*Rumph.* 5, *t.* 81.) অনান্নাস *Anannas.* 4. W. Indies. Domesticated in the Mascarenhas Islands, the E. Indies, Guinea, &c. Fl. small, bluish, H. S.; fr. R. and C. S. Pine-apples succeed as far north as 30° in the open air, but are plentiful in the garden of the Taj-muhul at Agra. They are so abundant in Ceylon, parts of Burma, and the Khassya Mountains, as to appear wild there, and are considered most delicious in the two latter places. It is evident, therefore how well suited the climate and soil of many parts of India are to the cultivation of the pine-apple. This is important not only on account of the fruit, but also on account of the fibre, which abounds in the leaves, as with it cloth has been manufactured as fine as some muslins. (*Royle.*)

β. *striatifolia*, Roxb. (*H. B. p.* 23.) ♃. Malacca. Introduced into H. C. G. in 1800, but had not fl. up to 1814.

2. *bracteatus*. Schult. (*syst.* 8, *p.* 1286.—Ananassa bracteata, *Lindl.*; *B. Reg.* 13, *t.* 1081.) ♃. Brazil. Has been introduced into H. C. G. Fl?

Bromelia, L. (*Schult. syst.* 8, *p*, LXXII. *No.* 1485;—*Spreng. syst.* 2, *p.* 3, *No.* 1165;—*Endl. gen. pl.* 1, *p.* 182.)

1. *Karatas*, L. (*Schult. syst.* 8, *p.* 1274;—*Spreng. syst.* 2, *p.* 21;—*Jacq. amer.* 90, *t.* 178, *f.* 26; *pict. t.* 260;—*hort. vind.* 1, 31, 32, 33, *t.* 73, 74;—*Roxb. H. B. p.* 23.) ♃. W. Indies. Fl. smallish, white, R. S.; fr. 0.

2. *humilis*, Jacq. (*Ic. rar. t.* 60;—*Schult. o. c. p.* 1275;—*Spreng. l. c.*) ♃. W. Indies. Lately introduced.

3. *Pinguin*, L. (*Schult. o. c. p.* 1277;—*Spreng. l. c.*;—*Lam. ill. t.* 223, *f.* 2.—Ananas Pinguin, *Gärtn. fr.* 1, *p.* 30, *t.* 11, *f.* 2.) ♃. Jamaica. Barbadoes. Lately introduced.

4. *sylvestris*, Willd. (*Schult. o. c. p.* 1279;—*Spreng. o. c. p.* 22;—*B. M.* 50, *t.* 2392.) ♃. Brazil. Has been introduced into H. C. G. Fl.?

5. A new species, from Rio Janeiro, sent by Messrs. Loddiges and Co. in August, 1841.

Billbergia, Thunb. (*Schult. syst.* 8, *p.* LXXI. *No.* 1483;—*Endl. gen. pl.* 1. *p.* 182;—*B. Reg.* 13, *t.* 1068, *app.*)

1. *pyramidalis*, Lindl. (*B. Reg. l. c.*;—*Schult.* 8, *p.* 1258.—Bromelia pyramidalis, *Sims.*; *B. M.* 42, *t.* 1732;—Bromelia nudicaulis, *Ker.*; *B. Reg.* 3, *t.* 203, excl. syn. L. and Plum;—*Spreng. syst.* 2, *p.* 21.) ♃. Rocks near Rio Janeiro. Introduced in 1840, but has not fl. yet.

β. *bicolor*, Lindl. (*B. Reg.* 14, *t.* 1181;—*Schult. o. c. p.* 1259.) ♃. S. America. Introduced in 1840, but has not fl. yet.

2. *zebrina*, Lindl. (*B. Reg.* 13, *t.* 1068, *app.*;—*Schult. o. c. p.* 1261.—Bromelia zebrina, *Herb.*; *B. M. t.* 53, *t.* 2686.) ♃. Rio Janeiro. Introduced in 1840, but has not fl. yet.

3. *amoena*, Lindl. (*B. Reg.* 13, *t.* 1068, *app.*;—*Schult. o. c. p.* 1263.—B. speciosa, *Thunb. pl. bras. p.* 30, with a plate.—Bromelia pallida, *Ker.*; *B. Reg.* 4, *t.* 344;—*Spreng. syst.* 2, *p.* 21;—*Hook. exot. fl. t.* 41. Tillandsia amoena. *B. Cab. t.* 76.) ♃. Brazil. Introduced in 1840, but has not fl. yet.

4. *iridifolia*, Lindl. (*B. Reg.* 13, *t.* 1068;—*Schult. o. c. p.* 1266.—Bromelia iridifolia, *Nees. and Mart.*) ♃. Rio Janeiro. Introduced in 1840, but has not fl. yet.

Pitcairnia, L'Herit. (*Schult. syst.* 8, *p.* LXIX. *No.* 1480;—*Spreng. syst.* 2, *p.* 4, *No.* 1168;—*Lindl. B. Reg.* 13, *t.* 1068, *app.*;—*Endl. gen. pl.* 1, *p.* 183.)

1. *staminea*, Lodd. (*B. Cab. t.* 773;—*B. M.* 50, *t.* 2411;—*Schult. syst.* 8, *p.* 1240;—*Spreng. syst.* 2, *p.* 22.) ♃. Brazil, near Rio Janeiro. Fl. 2 inches, bright scarlet. Introduced in August, 1841, but has not fl. yet.

2. *albiflos*, Herb. (*B. M.* 53, *t.* 2646;—*Schult. o. c. p.* 1241.—P. albiflora, *Spr. c. p. p.* 131.) ♃. Paras. Neighbourhood of Rio Janeiro. Fl. $1\frac{3}{4}$ inch, white. Introduced in August, 1841, but has not fl. yet.
3. *integrifolia*, Ker. (*B. M.* 36, *t.* 1462;—*Schult. o. c. p.* 1242;—*Spreng. syst.* 2, *p.* 22.) ♃. W. Indies. Fl. 20 lines, bright scarlet, Aug. and Sept.; fr. 0.
4. *angusitfolia*, Ait. (*B. M.* 37, *t.* 1547;—*Schult. o. c. p.* 1243;—*Spreng. l. c.*) ♃. St. Cruz. Fl. large, scarlet. Introduced in 1819. Fl.?
5. *bromeliæfolia*, L'Herit. (*Sert. angl. p.* 7, *t.* 11;—*Schult. o. c. p.* 1244;—*Spreng. l. c.*;—*B. M.* 21, *t.* 824.—*B. Reg.* 12, *t.* 1011;—*Roxb. H. B. p.* 23.) ♃. Jamaica, in shady places among rocks and precipices. Fl. $1\frac{1}{4}$ inch, pale red, April and May; fr. 0.
6. *bracteata*, Ait. (*Schult. o. c. p.* 1245;—*Spreng. l. c.* excl syn. P. sulphurea;—*B. M.* 55, *t.* 13.—P. latifolia, *Red. lil.* 2, *t.* 73, 74; excl. syn.) ♃. St. Vincent. Fl. largish, red. Introduced in August, 1841, but has not fl. yet.
7. *latifolia*, Ait. (*Schult. o. c. p.* 1246;—*Spreng. l. c.*;—*B. M.* 22, *t*, 856, excl. syn. Andr. and Réd, and descript.) ♃. W. Indies. Fl. 3 inches, more or less deep red, H. S.; fr. 0.
8. *furfuracea*, Sims. (*B. M.* 53, *t.* 2657;—*Schult. o. c. p.* 1248, not Willd.—P. intermedia, *Hortul.*) ♃. S. America. Fl. 3 inches, scarlet, April and May; fr. 0.
9. *ramosa*, Jacq. (*Ecl. p.* 154, among the errata;—*Schult. o. c. p.* 1247.—P. furfuracea, *Jacq. ecl. p.* 117, *t.* 79, not Willd.) ♃. S. America. Fl. 2 inches, at base dirty whitish, upwards purple tinged, July and Aug.; fr. 0.

Tillandsia, L. (*Schult. syst.* 8, *p.* LXVI. *No.* 1475;—*Spreng. syst.* 2, *p.* 4, *No.* 1170;—*B. Reg.* 13, *t.* 1068, *app.*;—*Endl. gen. pl.* 1, *p.* 183.)

1. *paniculata*, L. (*Schult. syst.* 8, *p.* 1220;—*Spreng. syst.* 2, *p.* 25;—*Burm. amer. ic.* 237.) ♃. Arid Mountains of St. Domingo. Introduced in 1840, but has not fl. yet.
2. *acaulis*, Lindl. (*B. Reg.* 14, *t.* 1157;—*Schult. o. c. p.* 1229.) ♃. Neighbourhood of Rio Janeiro. Fl. largish, white. H. and R. S.; fr. 0.
3. A new species, sent in 1840, by Messrs Loddiges and Co. ♃. Rio Janeiro. Has not fl. yet.

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* *Ananas semiserratus*, Schult. ♃. Hotter parts of America.—*A. lucidus*, Schult. ♃. S. America—*A. Sagenaria*, Schult. ♃. Pernambuco.—*Bromelia chrysantha*, Jacq. ♃. Caracas.—*B. fastuosa*, Lindl, ♃. Mexico.—*B. paniculigera*, Swz. ♃. W. Indies.—*B.? lingulata*, L. ♃. Martinique. *B.? longifolia*, Rudge. ♃. Guiana.—*Æchmea floribunda*, Schult. fil. ♃. Rio Janeiro,—*Billbergia cruenta*, Hook; B. M. 56, t. 2892. ♃. Rio Janeiro.—*B. clavata*, Lindl. (Bromelia melanantha, B. Reg. 9, t. 766.) ♃. Trinidad.—*B. oblonga*, Schult. fil. ♃. Rio Janeiro.—*B. nudicaulis*, Lindl.

(Bromelia nudicaulis, Hook. exot. fl. t. 143.) ♃. Trinidad.—*B. purpureo-rosea*, Hook; B. M. 61, t. 3304. ♃. Brazil.—*Pitcairnia Karwinskyana*, Schult. fil. ♃. Mexico.—*P. flammea*, Lindl.; B. Reg. 13, t. 1092. ♃. Brazil.—*P. suaveolens*, Lindl.; B. Reg. 13, t. 1069. ♃. Rio Janeiro.—*P. Redouteana*, Schult. ♃. St. Cruz.—*P. sulphurea*, Andr. (P. bracteata, β. sulphurea, B. M. 34, t. 1416.) ♃. W. Indies.—*P. albucæfolia*, Schrad. ♃. W. Indies.—*Tillandsia Bartramii*, Ell. ♃. Georgia.—*T. recurvata*, L. ♃. Jamaica. Bahama Islands.—*T. pulchra*, Hook. exot. fl. t. 154. ♃. Trinidad.—*T. coerulea*, Humb. and Bonpl. ♃. Mexico.—*T. Karwinskyana*, Schult. fil. ♃. Mexico.—*T. bulbosa*, Hook. exot. fl. t. 173. ♃. Mexico.—*T. flexuosa*, Swz. (T. flexuosa γ. Lindl.; B. Reg. 9, t. 749.) ♃. Jamaica.—*T. reticulata*, Sm. ♃. Jamaica.—*T. nitida*, Hook. exot. fl. t. 218. ♃. Jamaica.

ORDER CCXXXIV.—HYDROCHARACEÆ, Lindl. Nat. Syst. p. 335.

Floating or water plants, by Lindl. referred to 12 genera. Of these Spreng. syst. assigns 3 species to Europe, (1 also Indian); 2 to S. America; 2 to N. Holland, (1 also a native of India); 1 Egypt, (also a native of India); and 1 to N. America. In the E. Indies have been discovered 4 species of *Ottalia*; 3 of *Vallisneria*; 1 of *Hydrilla*; 1 of *Blyxa*; 1 of *Enhalus*; and 1 of *Hydrocharis*. A species of Blyxa has been found in Madagascar. Properties under the species.

A. Anacharideæ, (Anacharidæ, *Endl. gen. pl.* 1, *p.* 161.)

Hydrilla, L. C. Rich. (*Endl. l. c.*)

1. *verticillata*, L. C. Rich. (*Mém d'inst.* [1811.] 2, *p.* 61, *t.* 2.—Serpicula verticillata, *Lin. fil.*;—*Roxb. fl. ind.* 3, *p.* 578;—*J. Grah. Cat. B. pl. p.* 76; not Rostcow.—Vallisneria verticillata, *Roxb. fl. ind.* 3, *p.* 751. Udora verticillata, *Spreng.* 1, *p.* 170.—Hottonia serrata, *Willd.*) ⊙ Coromandel. Mahableshwar. Bengal, (Serampore.) and northwards to Saharunpore. Fl. small, whitish, R. S.; fr. C. S. This and similar plants are employed by the sugar-refiners of Saharunpore and Berhampore for covering the surface of their sugars, as clay is used in the W. Indies, to permit the slow percolation of water. (*Roxb. Royle.*)

B. Vallisnerieæ, *Endl. gen. pl.* 1, *p.* 161.

Vallisneria, Michel. (*Endl. l. c.*)

1. *spiralis*, L. (*R. Br. pr. p.* 201;—*Wight. in Hook. bot. misc. suppl.* 23, 24.—V. spiraloïdes, *Roxb. fl. ind.* 3, *p.* 750;—*J. Grah. Cat. B. pl. p.* 200.—V. Jacquiniana, *Spreng. syst.* 3, *p.* 900.) ⊙ N. America. S. France. N. Italy. N. Holland. Coromandel. The Concans. Patna, &c. Fl. small, R. S. (*Roxb.*)

2. *alternifolia*, Roxb. (*fl. ind.* 3, *p.* 750;—*Wight. in Hook. bot. misc.* 3, *p.* 344, *t.* 11;—*J. Grah. Cat. B. pl. p.* 199.) রসনঝাঁজি *Rusnojhanji.* ⊙ Coromandel. The Concans. Bengal, (Serampore.) Silhet. Fl. very small, R. S.; fr. C. S.

Blyxa, Pet. Th. (*Gen. madagasc. No.* 14;—*L. C. Rich. in Mém. d'inst.* [1811.] 2, *p.* 63, *t.* 4, 5;—*Endl. gen. pl.* 1, *p.* 161.)

1. *octandra*, Rich. (*l. c.*—Vallisneria octandra, *Roxb. Corom.* 2, *t.* 165; *fl. ind.* 3, *p.* 752;—*Spreng. syst.* 3, *p.* 900; excl. syn. L.;—*J. Grah. Cat. B. pl. p.* 199.—Saivala valisnerioïdes, *Hb. Buch.*) পাটা শেয়ালা *Pata-seyala.* ⊙ Coromandel. The Concans. Bengal, (Serampore.) Nepal. Fl. small, white, R. S.; fr. C. S.

C. Stratioteæ, (Stratiotideæ, *Endl. gen. pl.* 1, *p.* 162.)

Enhalus, L. C. Rich. (*Endl. l. c.*)

1. *acoroïdes*, L. C. Rich. (*l. c.*—Stratiotes acoroïdes, *L.*;—*Spreng. syst.* 2, *p.* 467;—*J. Grah. Cat. B. pl. p.* 251.—Acorus marinus, *Rumph.* 6, *p.* 191, *t.* 75, *f.* 2.) ⊙ Moluccas. The Concans. Has been introduced into H. C. G.? The whole plant has a sulphureous smell. The fruit is eatable, as well raw, as when they are roasted under hot ashes, or boiled in water, when the nuts acquire the taste of boiled chesnuts. The natives of the Moluccas make nets of the tough threads which remain after the putrified leaves; these nets are said to be very durable in sea-water. (*Rumph.*)

Ottelia, Pers. (*Syn.* 1, *p.* 400;—*L. C. Rich. Mém. d'inst.* [1811.]—*Endl. gen. pl.* 1, *p.* 162.)

1. *alismoïdes*, Pers. (*l. c.*;—*L. C. Rich. l. c.*—Stratiotes alismoïdes, *L. sp.* 754;—*Forsk, æg. p.* 101;—*Sm. exot. bot.* 1, *p.* 27, *t.* 15.—Damasonium alismoïdes, *R. Br. pr. p.* 344; annot.—Damasonium indicum, *Willd.*;—*Spreng. syst.* 2, *p.* 163;—*Schult. syst.* 8, *p.* 1593;—*Bl. en. pl. jav. fasc.* 1, *p.* 30;—*Roxb. Corom.* 2, *t.* 185; *fl. ind.* 2, *p.* 216;—*B. M.* 30, *t.* 1201;—*J. Grah. Cat. B. pl. p.* 200.—Hymenotheca laxifolia, *Salisb. MSS.*;—*Rheed.* 11, *t.* 46.) পানী কলা *Panee-kula.* ⊙ Sunda Islands. Ceylon. Coromandel. Bombay. The Concans. Melloon. Bengal, (Serampore.) Silhet. Assam. Nepal. Egypt. Fl. 1-2 inches in diameter, whitish, fugacious, longitudinally veined, R. S.; fr. C. S.

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* *Vallisneria nana*, R. Br. ⊙ Tropical N. Holland.—*V. Physcium*, Juss. ⊙ Cochin China.—*Stratiotes aloïdes*, L.; E. B. 6, t. 379. ⊙ Europe.—*Boottia cordata*, Wall. pl. as. rar. 1, t. 65. Prome. Taong-Dong.—*Hydrocharis cellulosa.* Hb. Buch. Nathpur. Goruckpore. Silhet.—*Ottelia sessilis*, (Damasonium sessile, Hb. Buch.) Mahujadabad.—*O. javanica*, (Damasonium javanicum, Bl.) Java.—*O. ovalifolia*, (Damasonium ovalifolium, R. Br.) Port Jackson.—*O. tranquabariensis*, (Damasonium tranquebariense, Hb. Schreber.) Tranquebar.

ORDER CCXXXV.—ORCHIACEÆ, (ORCHIDACEÆ, Lindl. Nat. Syst. p. 336.)

THE ORCHIS TRIBE.

Herbs, found in almost all parts of the world, except upon the verge of the frozen zone, and in climates remarkable for dryness. In Europe, Asia, N. America, and New Holland they are seen growing every where,—in groves, in marshes, and in meadows; in the drier parts of Africa they are either rare or unknown; at the C. G. H. they abound in similar situations as in Europe; but in the hot damp parts of the W. and E. Indies, in Madagascar, and the neighbouring islands, in the damp and humid forests of Brazil, in the warm mild parts of central America, and W. Mexico! in the damp tropical parts of India, (in Assam, on the Khassya Mountains, on the lower mountains of Nepal, &c.,) these Orchideous plants flourish in the greatest variety, and profusion, no longer seeking their nutriment from the soil, but clinging to the trunks and limbs of trees, to stones, and bare rocks, where they vegetate among ferns and other shade-loving plants, in countless thousands. The number of species of this tribe is unknown, but probably is not less than 1860?" (*Lindl.*)

Although the last fascicle of Lindl's. genera and species of Orchideous plants has not come to hand, it is, perhaps, not too much to say, that the number of hitherto described Indian species of this order amounts to 700, which are thus distributed among the following divisions; *Malaxiëæ*, 390; *Epidendieæ*, 153; *Vandeæ*, 487; *Ophydëæ*, 449; *Arethuseæ*, 218; *Neottiëæ*, 270; and *Cypripedieæ*, 23.

"It often happens, that those productions of nature which charm the eye with their beauty, and delight the senses with their perfume, have the least relation to the wants of mankind, while the most powerful virtues or most deadly poisons are hidden beneath a mean and insignificant exterior. Thus the Orchidaceæ beyond their beauty, can scarcely be said to be of known utility, with a few exceptions. The nutritive substance called *Salep*, has been said to be prepared from the subterraneous succulent roots of Orchis mascula and others; but it is now known from the enquiries of Royle, to be the produce of the tubers of a species of Eulophia; it consists almost entirely of a chemical principle called Bassorin, (*Turner*, 699.) The root of Bletia verecunda is said to be stomachic, (*Lunan*). Some of the S. American species, such as the Catasetums, Cyrtopodiums, &c. contain a viscid juice, which being inspissated by boiling, becomes a kind of vegetable glue used for economical purposes in Brazil." (*Lindl.*)

A. MALAXIËÆ, (Malaxideæ, *Lindl. gen. and spec. orch. pl. p.* 3;—*Endl. gen. pl. p.* 186.)

PLEUROTHALLIS, R. Br. (*Lindl. o. c. p.* 6.)

1. *racemiflora*, Lindl. (*o. c. p.* 6.—Epidendrum racemiflorum, *Swz. pr.* 125.—Dendrobium racemiflorum, *Swz.; fl. occid.* 1543;—*Willd. No.*

2.) 4. Paras. Highest Mountains of Jamaica. Introduced in 1840. Has not fl.

Octomeria, Lindl. (*gen. and sp. orch. pl. p.* 10.)

1. *graminifolia*, R. Br. (*B. M.* 54, *t.* 2764.—*B. Cab.* 19, 1891.—*Paxt. Mag.* 1, *p.* 156, cum. fig. ad. p. 155.) Terrestr. W. Indies.

Stelis, Swz. (*Hook. exot. fl.* 3, *t.* 158;—*Lindl. gen. and sp. orch. pl. p.* 12.)

1. *micrantha*, Swz. 4. Paras. Jamaica.

Oberonia, Lindl. (*gen. and sp. orch. pl. p*, 15.)

1. *iridifolia*, Lindl. (*l. c.*—Malaxis ensiformis, *Sm.*—Cymbidium iridifolium, *Roxb. fl. ind.* 3, *p.* 458.) 4. Paras. Ceylon. Khassya Mountains. Nepal. Otaheite. Fl. minute, yellow. Oct. and Nov.

Liparis, L. C. Rich. (*Lindl. gen. and sp. orch. pl. p.* 26;—*Endl. gen. pl. p.* 189.)

1. *bracteata*, Wall. Upper Assam. Fl. July, 1836.
2. *concinna*, Wall. do. do. Scarcely different from No. 1.
3. *anceps*, Wall. Khassya Hills.
4. *cylindrostachya*, Wall. 4. Khassya Mountains. Has been introduced into H. C. G. Fl.?
5. *canaliculata*, Wall. Nepal.
6. *odorata*, Lindl. (*gen. and spec. orch. pl. p.* 26.—Malaxis odorata, *Willd.*—*Rheed.* 12, *p.* 55, *t.* 28.) Fl. sweet-scented, yellowish-green. Kemaon. Terrest.

Otochilus, Lindl. (*Lindl. gen. and sp. orch. pl. p.* 35;—*Endl. gen. pl. p.* 189.)

1. *albus*, Lindl. 4. Paras. Nepal. 1818. Fl. inodorous. Lip at the base yellow. Column greenish.
2. *fuscus*, Lindl. (*l. c.*—*Wall. pl. as. rar.* 1, *t.* 66.) 4. Paras. Nepal. Fl. middle-sized, rosy-white, fragrant, January.

Pholidota, Lindl. (*gen. and sp. orch. pl.* 36;—*Endl. gen. pl. p.* 190.)

1. *imbricata*, Lindl. (*l. c.*;—*Hook. exot. fl. t.* 138, not B. Reg. 14, t. 1213;—*B. Reg.* 21, *t.* 1777;—*Lodd. B. Cab. t.* 1934.—Cymbidium imbricatum, *Roxb. fl. ind.* 3, *p.* 460;—*J. Grah. Cat. B. pl. p.* 204.—Ptilocnema bracteatum, *D. Don. pr. fl. nep. p.* 33;—*Rheed.* 12, *t.* 24.) 4. Paras. Ceylon. Coromandel. Bombay. Chittagong. Khassya Mountains. Nepal. Fl. small, greyish-lilac, Sept. and Oct.
2. *undulata*, Wall. (*in B. Reg.* 14, sub. Ph. imbricata.) 4. Paras. Khassya Hills. Fl. brownish, lip pale brick-coloured. Fl. white, at the base of the apex of the lip yellowish.
3. *articulata*, Lindl. (*o. c. p.* 38.) 4. Paras. Khassya Mountains. Introduced in 1840. Has not fl.
4. *ophiocephala*. Lindl. (*B. Reg.* 24, *p.* 34, *No.* 48.) 4. Mexico. Fl. 1841.

Coelogyne, Lindl. (*gen. and sp. orch. pl. p.* 38;—*Endl. gen. pl. p.* 190.)

1. *flavida*, Wall. MSS. 4. Paras. Khassya Mountains. In H. C. G. Fl.?

2. *undulata*, Wall. MSS. 4. Paras. Khassya Mountains. In H. C. G. Fl.?
3. *fimbriata*, Lindl. (*B. Reg.* 11, *t.* 868.) Nepal. China. Fl. yellowish-green.
4. *barbata*, Wall. MSS. 4. Paras. Khassya Mountains. In H. C. G. Fl.?
5. *longicaulis*, Wall. Khassya Hills. 1837.
6. *procera*, Wall. Khassya Hills. 1837.
7. *cristata*, Lindl. Nepal. 1836. Fl. white, large, scented, divaricate.
8. *decora*, Wall. MSS. 4. Paras. Khassya Mountains. In H. C. G. Fl.?
9. *rigida*, Wall.
10. *Wallichiana*, Lindl. (*o. c. p.* 43;—*Wall. pl. as. rar.* 1, *t.* 54;—*B. Reg.* 1838, *app. p.* 85;—*Paxt. Mag.* 6, *t.* 15.) 4. Paras. Khassya Mountains. Fl. large, deep rose-coloured, scentless, C. S.
11. *præcox*, Lindl. (*l. c.*—Epidendrum præcox, *Sm. exot. bot. t.* 97.—Cymbidium præcox, *Sm. in. Rees' encycl.*—Pleione præcox, *D. Don. pr. fl. nep. p.* 37.) 4. Paras. Fl. largish, purple, with the limb of the labellum white, C. S.
12. *maculata*, Lindl. (*l. c.*;—*Wall. pl. as. rar.* 1, *t.* 53.) 4. Paras. Khassya Mountains. Fl. large, white, fragrant. The lip variegated with yellow and purple, C. S.
13. *interrupta*, Wall. Khassya. Is this different from the following?
14. *prolifera*, Lindl. (*B. Reg.* 3 *ser*, 1, *p.* 44.) Nepal. 1821. Fl. greenish yellow.
15. *nitida*, Lindl. (*l. c.*—Cymbidium nitidum, *Roxb. fl. ind.* 3, *p.* 459.) 4 Paras. Garrow Hills. Khassya Mountains. Nepal. Fl. large, nearly white, May.
16. *ocellata*, Lindl. (*l. c.*;—*B. Reg.* 1839, *app. p.* 31;—*B. M.* 66, *t.* 3767.) 4. Paras. Khassya Mountains. Sirmore. Kemaon. Fl. large, white, lip-tinged with yellow, veined with orange, each lateral lobe having a large ocellated orange spot, and the terminal one 3 smaller spots at the base, C. S.
17. *media*, Wall. MSS. 4. Paras. Khassya Mountains. Has been introduced into H. C. G. Fl.?
18. *elata*, Lindl. (*o. c. p.* 40;—*Wall. pl. as. rar.* 3, *t.* 218;—*B. Reg.* 1839, *app. p.* 92.) 4. Paras. Khassya Mountains. Nepal. Fl. largish, white, inodorous, C. S.
19. *ovalis*, Lindl. (*B. Reg.* 1838, *app. p.* 91.) 4. Paras. Nepal. Kemaon. Introduced into H. C. G. Fl.?
20. *Gardneriana*, Lindl. (*l. c.*—1837.—*Paxt. Mag.* 6, *t.* 73.) Fl. very large, white, immaculate.

MEGACLINIUM, Lindl. (*gen. and sp. orch. pl. p.* 47.)

1. *falcatum*, Lindl. (*l. c.*;—*B. Reg.* 12, *t.* 989.) Sierra Leona. Introduced in 1840. Has not fl.
2. *maximum*, Lindl. (*B. Reg.* 23, *t.* 1951.) Sierra Leona.

BOLBOPHYLLUM, Pet. Th. (*Lindl. gen. and sp. orch. pl. p.* 47.)

1. *leopardinum*, Lindl. (*o. c. p.* 48.—Dendrobium leopardinum. *Wall. tent. fl. nep.* 1, *p.* 39, *t.* 28.) 2. Paras. Chandagiri Mountain, Nepal. Fl. large, pale yellowish-green, spotted with purple. Has I believe fl. in H. C. G., not here.
2. *auricomum*, Lindl. (*o. c. p.* 50.) 2. Paras. Tavoy. Kyook-Phyoo. Introduced in 1840, but has not fl. yet.
4. *umbellatum*, Lindl. (*o. c. p.* 56.) 2. Paras. Khassya Mountains. Nepal. Fl. dull dirty-yellow, spotted with brown, 1838.
3. *Careyanum*, Spreng. (*Syst.* 3, *p.* 732;—*Lindl. o. c. p.* 51.—Pleurothallis purpurea, *D. Don. fl. nep. p.* 33.—Tribrachia purpurea, *Lindl. coll.*—Anisopetalum Careyanum, *Hook. exot. fl. t.* 149.) 2. Paras. Nepal. Martaban. In H. C. G. 1836.
5. *flexuosum*, Wall. Khassya, 1836.
6. *fuscescens*, Wall. Upper Assam. Capt. Jenkins, 1838. Very near B. umbellatum, L., but distinct.
7. *cocoinum*, Batem (*Lindl. B. R.* 23, *No.* 1964.) Sierra Leona. 1838.
8. *serpens*, Wall. Khassya Hills. H. Inglis, 1838. Fl. June 1839. Very near Bolbophyllum reptans, Lindl., Orch. p. 51.—Tribrachia reptans, Coll. Bot. *No.* 41, *f.* A.,
9. *recurvum*, Lindl. (*Orch.* 53.—Tribrachia pendula, *Lindl. B. R.* 12, 963.) Sierra Leona.
10. *Jenkinsii*, Wall. Assam, 1840.

CIRRHOPETALUM, Lindl. (*gen. and sp. orch, pl. p.* 58;—*Endl. gen. pl. p.* 191.)

1. *Roxburghii*, Lindl. (*l. c.*;—*Wall. pl. as. rar.* 1, *t.* 67.—Aerides radiatum, *Roxb. fl. ind.* 3, *p.* 476.) 2. Paras. Soonderbuns. Fl. small, yellow, June and July. (*Roxb.*)
2. *Lindleyanum*, Wall. Comes very near to *No.* 1, Burma, 1828.
3. *cæspitosum*, Wall. MSS. (*B. Reg.* 1838, *app. p.* 35.) 2. Paras. Khassya Mountains, 1836.
4. *cornutum*, Lindl. (*B. Reg.* 1838, *app. p.* 75.) 2. Paras. Khassya Mountains. Has been introduced into H. C. G. Fl.?
5. *macrophyllum*, Wall. Khassya Mountains. 1836.

TRIAS, Lindl. (*gen. and sp. orch. pl. p.* 60;—*Endl. gen. pl.* 1, *p.* 191.)

1. *oblonga*, Lindl. (*l. c.*;—*Wall. pl. as. rar.* 1, *t.* 70.) 2. Paras. Moulmein. Fl. smallish, brownish-green, with a purplish labellum, March, 1836.
2. *racemosa*, Wall. Khassya, 1836.

ERIA, Lindl. (*gen. and sp. orch. pl. p.* 65;—*Endl. gen. pl.* 1, *p.* 192.)

1. *paniculata*, Lindl. (*l. c.*—*Wall. pl. as. rar.* 1, *t.* 36.) 2. Paras. Khassya Mountains, 1833.
2. *flava*, Lindl. (*o. c. p.* 65.—Dendrobium pubescens, *Hook. exot. fl. t.* 124.—Octomeria flava, *Wall.*—O. pubescens, *Spreng. syst.* 4, *p.* 310.) 2. Paras. Moulmein. Chappedong. Noakoti, Nepal. Khassya. 1810.

3. *pusilla*, Wall. MSS. 4. Paras Khassya Mountains, 1836.
4. *densiflora*, Wall. 4. Paras. Khassya Mountains, 1835.
5. *clavicaulis*, Wall. Khassya, 1837.
6. *planicaulis*, Wall. MSS. 4 Paras. Khassya Mountains. In H. C. G. Fl. ?
7. *excavata*, Lindl. (*o. c. p.* 67 ;—*Wall. pl. as. rar.* 2, *t.* 160.) 4. Paras. Sheopore Mountains. Nepal. In H. C. G.
8. *pumila*, Lindl. (*o. c. p.* 68 ;—*B. Reg.* 1838, *app. p.* 79.) 4. Paras. Fl. small, membranous, slightly tinged with pink. In H. C. G.
9. *ferruginea*, Lindl. (*B. Reg.* 1839, *t.* 35.) 4. Paras. Khassya Mountains ? In H. C. G. Fl. ?
10. *convallarioïdes*, Lindl. (*o. c. p.* 70.—Pinalia, *Lindl. orch. scel. No.* 71, *p.* 23, with a plate.—Pinalia alba, *Buch. MSS. in D. Don. fl. nep.* —Octomeria spicata, *D. Don. pr. fl. nep. p.* 31.—O. convallarioides, *Wall.*) 4. Paras. Nepal. Khassya Mountains. Fl. small, white, inodorous, C. S.

APORUM, Bl. (*Lindl. gen. and sp. orch. pl. p.* 70 ;—*Endl. gen. pl.* 1, *p.* 192.)

1. *anceps*, Lindl. (*o. c. p.* 71 ;—*B. M.* 64, *t.* 3608.—Dendrobium anceps, *Swz.* ;—*B. Reg.* 15, *t.* 1239 ;—*Spreng. syst.* 3, *p.* 438 ;—*Roxb. fl. ind.* 3, *p.* 487.) 4. Paras. Soonderbuns. Fl. middle-sized, pale yellowish-green, H. S.
2. *cuspidatum*, Wall. MSS. 4. Paras. Khassya. In H. C. G. Fl. ? Like *No.* 1.

DENDROBIUM, Swz. (*Lindl. gen. and sp. orch. pl. p.* 74.)

1. *Pierardi*, Roxb. (*fl. ind.* 3, *p.* 482 ;—*Lindl. o. c. p.* 79, excl. syn. R. Br. ;—*Hook. exot. fl. t.* 9 ;—*B. M.* 52, *t.* 2584 ;—*B. Reg.* 21, *t.* 1756. —*J. Grah. Cat. B. pl. p.* 204.) 4. Paras. Chappedong. Chittagong. Soonderbuns. Silhet. Fl. large, pale yellow, H. S.
3. *heterocarpum*, Wall. (*Lindl. o. c. p.* 78 ;—*Wall. pl. as. rar.* 2, *t.* 196.) 4. Paras. Nepal. Fl. large, pale-yellow, fragrant, H. S.
4. *chrysanthum*, Wall. (*Lindl. o. c. p.* 80 ;—*B. Reg.* 15, *t.* 1299.) 4. Paras. Nepal. Fl. large, intensely yellow, May.
5. *Paxtonii*, Lindl. (*B. Reg.* 1839, *app. p.* 43.) 4. Paras. Khassya Mountains. Fl. largish, orange-yellow, with a deep brown spot in the middle of the lip. In H. C. G.
6. *longicornu*, Lindl. (*o. c. p.* 80 ;—*B. Reg.* 16, *t.* 1315.) 4. Paras. Khassya Mountains. Nepal. Fl. large, with a yellow lined lip, inodorous, April.
7. *formosum*, Roxb. (*fl. ind.* 3, *p.* 485 ;—*Lindl. o. c. p.* 81 ;—*Wall. pl. as. rar.* 1, *t.* 39 ;—*B. Reg.* 1839, *t.* 64 ;—*Paxt.* 6, *t.* 49.) 4. Paras. Tavoy. Martaban. Khassya Mountains. Garrow Hills. Nepal. Fl. very large, pure white, sweet-scented, with the middle of the lip yellow. April and May.

8. *pulchellum*, Roxb. (*fl. ind.* 3, *p.* 486;—*Lindl. o. c. p.* 82.) 2. Paras. Khassya Mountains. Fl. large, pale rose-coloured, May and June.
9. *Calceolus*, Roxb. (*fl. ind.* 3, *p.* 488.—D. moschatum, *Wall.*;—*D. Don. pr. fl. nep. p.* 34;—*Lindl. o. c. p.* 82.—Epidendrum moschatum, *Buch. in Syme's. emb.* 3, *p.* 315, with a plate.—*Rumph.* 6, *t.* 50, *f.* 3.) 2. Paras. Amboyna. Pegu. Fl. very large, dull orange-coloured, slightly veined, with dull red, R. S.
10. *denudans*, D. Don. (*pr. fl. nep. p.* 34;—*Lindl. o. c. p.* 84;—*B. Reg.* 1838, *app. p.* 84.) 2. Paras. Nepal. In H. C. G. Fl.?
11. *crumenatum*, Swz. (*Lindl. o. c. p.* 88;—*Roxb. fl. ind.* 3, *p.* 480;—*B. Reg.* 1839, *t.* 22.—Onychium crumenatum, *Bl.*;—*Rumph.* 6, *t.* 47, 2.) 2. Paras. Amboyna. Java. Sumatra. Penang. Fl. large, white, rose-tipped, with the disc of the labellum yellow, R. S.
12. *densiflorum*, Wall. (*Lindl. o. c. p.* 90;—*Wall. pl. as. rar.* 1, *t.* 40;—*Paxt.* 5, 121.—*B. M.* 62, *t.* 3418;—*B. Reg.* 21, *t.* 1828.—Epidendrum Dumunsutta, *Buch. in. Sm. Hb.*) 2. Paras. Nepal. Fl. large, pale-yellow, with an orange-coloured lip, May.
13. *sulcatum*, Lindl. (*B. Reg.* 1838, *t.* 65.) 2. Paras. Khassya Mountains. Fl. largish-yellow, with a tinge of orange. Has been introduced into H. C. G.
14. *aggregatum*, Roxb. (*fl. ind.* 3, *p.* 477;—*Paxt. Mag.* 6, 145;—*B. Reg.* 20. *t.* 1695.) 2. Paras. Chappedong. Fl. large, yellow, March.
15. *bicameratum*, Lindl. (*B. Reg.* 1839, *app. p.* 59.) 2. Paras. Khassya Mountains. Fl. dull-yellow, spotted and streaked with purple. Has been introduced into H. C. G. Fl.?
16. *Jenkinsii*, Wall. (*B. Reg.* 1839, *t.* 37.) 2. Paras. Assam. Fl. large, yellow, March.
17. *coerulescens*, Wall. MSS. 2. Paras. Khassya Mountains. Fl. large, bluish-purple, C. S.
18. *Gibsonii*, Paxt. (*Mag.* 6, *t.* 916.) 2. Paras. Khassya Mountains? In H. C. G. Fl.?
19. *candidum*, Wall. (*B. Reg.* 1838, *app. p.* 36.) 2 Paras. Khassya Mountains. Fl. white, exquisitely scented. Has been introduced into H. C. G. Fl.?
20. *stuposum*, Lindl. (*B. Reg.* 1838, *app. p.* 52.) 2. Khassya Mountains. Fl. white, a little smaller than those of the preceding species. In H. C. G.
21. *Cambridgeanum*, Paxt. (*Mag.* 6, *t.* 265.—D. fimbriatum, *Paxt. Mag.* 2, *t.* 172.) 2. Paras. Rangoon. Fl. middle-sized, white. In H. C. G. fl. C. S. (*Roxb.*)
22. *flavum*, Roxb. 2. Paras. Chittagong. In H. C. G. fl. Feb. and March. (*Roxb.*)
23. *pumilum*, Roxb. (*fl. ind.* 3, *p.* 279.) 2. Chittagong. Fl. middle-sized, yellow, inodorous. In H. C. G. fl. R. S. (*Roxb.*)

24. *clavatum*, Roxb. (*fl. ind.* 3, *p.* 481;—*Wall. Cat.?*) 4. Paras. Garrow Hills. Khassya Mountains? Nepal? Fl. largish, lively-yellow. In H. C. G. fl. April and May. (*Roxb.*)

25. *purpureum*, Roxb. (*fl. ind.* 3, *p.* 484;—*Rumph.* 6, *t.* 50, *f.* 1.) 4. Paras. Amboyna. Moulmein? Fl. small, lively-purple. In H. C. G. fl. Feb. and March. (*Roxb.*)

26. *pendulum*, Roxb. (*fl. ind.* 3, *p.* 484.) 4. Paras. Chittagong. In H. C. G. fl. April and May. (*Roxb.*)

B. EPIDENDRËÆ.

Lindl. gen. and sp. orch. pl. p. 95;—*Endl. gen. pl.* 1, *p.* 193.

EPIDENDRUM, L. (*Lindl. l. c.*;—*Endl. l. c.*)

1. *fragrans*, Swz. (*Lindl. o. c. p.* 97;—*B. M.* 40, *t.* 1669;—*B. Cab. t.* 1039.—E. lineatum, *Salisb.*) 4. Paras. Jamaica. Introduced in 1840, but has not fl. yet.

2. *odoratissimum*, Lindl. (*o. c. p.* 99;—*B. Reg.* 17, *t.* 1415.—Macradenia lutescens, *Lodd. B. Cab.*, not R. Br.—Encyclia patens, *Hook.*; *B. M.* 57, *t.* 3013.) 4. Paras. Rio Janeiro. Introduced in 1840. Has not fl.

3. *variegatum*, Hook. (*B. M.* 59, *t.* 3151.) 4. Paras. Rio Janeiro. Introduced in 1840. Has not fl.

CATTLEYA, Lindl. (*gen. and sp. orch. pl. p.* 166;—*Endl. gen. pl.* 1, *p.* 194.)

1. *Forbesii*, Lindl. (*o. c. p.* 117;—*B. Reg.* 11, *t.* 933;—*B. M.* 60, *t.* 3265. 4. Paras. Brazil. Introduced in 1840. Has not fl.

SPATHOGLOTTIS, Bl. (*Lindl. o. c. p.* 119.)

1. *pubescens*, Lindl. (*o. c. p.* 120.) 4. Terrest. Prome. Taong-Dong. Khassya Mountains. 1836. Fl. smallish, yellowish, C. S.

BLETIA, Ruiz, and Pav. (*Lindl. gen. and sp. orch. pl. p.* 120;—*Endl. gen. pl.* 1, *p.* 194.)

1. *verecunda*, R. Br. (*Lindl. o. c. p.* 121.—Limodorum altum, *L.*; *Jacq. icon. rar.* 3, *t.* 602;—*B. M.* 24, *t.* 930.—L. verecundum, *Salisb.*—L. trifidum, *Michx.*—L. purpureum, *Red.*—Cymbidium verecundum, *Swz.*; *Roxb. H. B. p.* 63.—C. altum, *Willd.*; *Pers.*—Gyas verecunda, *Salisb.*) 4. Terrest. W. Indies. Jamaica, but found only in the cooler parts of the mountains, in dry and sandy situations. Fl. beautifully light purple, middle-sized, inodorous, and fr. R. and C. S.

2. *hyacinthina*, R. Br. (*Lindl. o. c. p.* 122.—Limodorum striatum, *Thunb. ic. pl. jap. t.* 9, *p.* 28.—Epidendrum striatum, *Thunb. act. soc. Linn.* 2, *p.* 327.—Cymbidium striatum, *Swz.*; *Roxb. H. B. p.* 63.—C. hyacinthinum, *Sm. exot. bot.* 1, *t.* 60;—*B. M.* 36, *t.* 1492.—Gyas humilis, *Salisb.*) 4. Terrest. China. Japan. Fl. largish, beautifully bright-purple, inodorous, March and April; fr. 0.

ARUNDINA, Bl. (*Lindl. o. c. p.* 125;—*Endl. gen. pl. p.* 195.)

1. *bambusifolia*, Lindl. (*l. c.*—Cymbidium bambusifolium, *Roxb. fl. ind.* 3, *p.* 460.—Bletia graminifolia, *D. Don. pr. fl. nep. p.* 29.) 4. Ter-

rest. Chittagong. Khassya Mountains. Fl. largish, rosy, with the lip of a lively-red purple, inodorous. March and April, sometimes also May and June; fr. 0.

Phaius, Lour. (*Lindl. o. c. p.* 126;—*Endl. gen. pl.* 1. *p.* 195.)

1. *grandifolius*, Lour. (*Lindl. l. c.*—Limodorum Tankervilliæ, *Ait.*—*Roxb. fl. ind.* 3, *p.* 466.—L. Incarvilla, *Per.*—Pachyne spectabilis, *Salisb.*—Bletia Tankervilliæ, *R. Br.; B. M.* 44, *t.* 1924.) 4. Terrest. China. Khassya Mountains. Fl. very large, many-veined, above sulphur-coloured, densely marked with rust-coloured dots, underneath white and crystallinely micant, inodorous, the lip whitish-yellowish, variegated with rose and purple, March and April; fr. 0.
2. *Wallichii*, Lindl. (*l. c.*;—*Wall. pl. as. rar.* 2, *t.* 158.—P. grandifolius, *Lindl. in. Wall. Cat.* not Lour.) 4. Terrest. Khassya Mountains. Fl. very large, brown, inodorous with lip yellowish-white, variegated with rose-colour, March; fr. 0.
3. *albus*, Lindl. (*o. c. p.* 128;—*Wall. pl. as. rar.* 2, *t.* 198;—*J. Grah. Cat. B. pl. p.* 205.) 4. Terrest. Khassya Mountains. Fl. very large, white, sweet-scented, the lip purple-veined with a yellow disc, April and May; fr. 0.
4. *maculatus*, Lindl. (*Orch. p.* 127.—Bletia Woodfordii, *Hook.; B. M.* 54, *t.* 2719.) Khassya Mountains. 1836.

C. Vandeæ.

Lindl. gen. and sp. orch. pl. p. 135;—*Endl. gen. pl. p.* 195.

Maxillaria, Ruiz. and Pav. (*Lindl. o. c. p.* 142;—*Endl. o. c. p.* 196.)

1. *Parkeri*, Hook. (*B. M.* 54, *t.* 2729;—*Lindl. o. c. p.* 146.) 4. Paras. Demerara. Introduced in 1840. Has not fl.
2. *picta*, Hook. (*B. M.* 59, *t.* 3154;—*Lindl. l. c.*;—*B. Reg.* 21, *t.* 1802.) 4. Paras. Organ Mountains. Brazil. Introduced in 1840. Has not fl.
3. *Harrisoniæ*, Lindl. (*o. c. p.* 148;—*B. Reg.* 11, *t.* 897;—*B. M.* 56, *t.* 2927.—Dendrobium Harrisoniæ, *Lindl.*—*Hook. exot. fl. t.* 120.—Colax Harrisoniæ, *Lindl.; B. Reg.* 11, *t.* 897;—*Spreng. syst.* 3. *p.* 727.) 4. Paras. Rio Janeiro. Introduced in 1840. Has not fl.
4. *densa*, Lindl. (*B. Reg.* 21, *t.* 1804.) 4. Paras. Mexico. Introduced in 1840. Has not fl.
5. *variabilis*, Lindl. 4. Paras. Mexico.

   β. *unipunctata*, Lindl. (*B. Reg.* 1838, *app. p.* 23.) 4. Paras. Vera Cruz. Fl. smallish, deep-yellow, shaded with a faint greenish tinge, Feb.; fr. 0.

Bifrenaria, Lindl. (*o. c. p.* 152;—*Endl. gen. pl. p.* 197.)

1. *aurantiaca*, Lindl. (*B. Reg.* 22, *t.* 1875;—*B. M.* 64, *t.* 3597.) 4. Paras. Demerara. Introduced in 1840. Has not fl.

Batemannia, Lindl. (*B. Reg.* 20, *t.* 1714;—*Endl. gen. pl.* 1, *p.* 197.)

1. *Colleyi*, Lindl. (*l. c.*) 4. Paras. Demerara. Introduced in 1840. Has not fl.

DICRYPTA, Lindl. (*gen. and sp. orch. pl. p.* 152;—*Endl. gen. pl.* 1, *p.* 198.)

1. *Baueri*, Lindl. (*l. c.*—Heterotaxis crassifolia, *Lindl.; B. Reg.* 12, *t.* 1028;—*B. Cab. t.* 1651.) 4. Paras. Jamaica. Introduced in 1840.

CATASETUM, L. C. Rich. (*Lindl. o. c. p.* 155;—*Endl. l. c.*)

1. *tridentatum*, Hook. (*Exot. fl. t.* 90, 91;—*B. M.* 52, *t.* 2559;—*Lindl. l. c.*—C. Claveringi, *Lodd. B. Cab. t.* 1344.) 4. Paras. Equinoctial America. Introduced in 1840. Has not fl.
2. *luridum*, Lindl. (*o. c. p.* 156;—*B. Reg.* 20, *t.* 1667;—*B. M.* 64, *t.* 3594;—Anguloa lurida, *Lk.*) 4. Paras. Brazil. Introduced in 1840. Has not fl.

STANHOPEA, Hook. (*Lindl. o. c. p.* 157;—*Endl. gen. pl.* 1, *p.* 198.)

1. *grandiflora*, Lindl. (*o. c. p.* 158.—Ceratochilus grandiflorus, *Lodd.*—*B. Cab. t.* 1414.) 4. Paras. Trinidad. Introduced in 1840. Has not fl.
2. *oculata*, Lindl. (*l. c.;*—*B. Reg.* 21, *t.* 1800.—Ceratochilus oculatus, *Lodd.; B. Cab. t.* 1764.) 4. Paras. Mexico. Introduced in 1840. Has not fl.

GONGORA, Ruiz. and Pav. (*Lindl. o. c. p.* 158;—*Endl. gen. pl.* 1, *p.* 199.)

1. *atropurpurea*, Hook. (*Exot. fl. t.* 178;—*Lindl. o. c. p.* 159;—*B. M.* 60, *t.* 3220.) 4. Paras. Trinidad. Introduced in 1840. Has not fl.

CYMBIDIUM, Swz. (*Lindl. o. c. p.* 161;—*Endl. gen. pl.* 1, *p.* 199.)

1. *sinense*, Willd. (*Lindl. o. c. p.* 162;—*Roxb. H. B.*—C. fragrans, *Salisb.*—Epidendrum sinense, *Andr.; B. Repos.* 3, *t.* 216;—*B. M.* 23, *t.* 888.) 4. Paras. China. In H. C. G. fl. Nov. Dec. and Jan. (*Roxb.*)
2. *giganteum*, Wall. (*Lindl. o. c. p.* 163, not Swz.—Limodorum longifolium, *Buch.*) 4. Paras. Nepal. Khassya Mountains. Fl. brownish-purple, margined with yellowish, March, 1836.
3. *lancifolium*, Hook. (*Exot. fl. t.* 51;—*B. Cab.* 10, *t.* 927.—*Lindl. o. c. p.* 164.) 4. Paras. Nepal. In H. C. G. Fl.?
4. *aloïfolium*, Swz. (*Lindl. o. c. p.* 165;—*Roxb. fl. ind.* 3, *p.* 458.—*J. Grah. Cat. B. pl. p.* 203.—Epidendrum aloïfolium, *L.*—*B. M.* 11, *t.* 387.—Aerides Borassii, *Sm. in Rees' cycl.*—*Rheed.* 12, *t.* 8.) 4. Paras. Peninsula of India. Garrow Hills. Khassya Mountains. Penang. Ava. Fl. large, dull purple, marked with deeper stripes, whitish-edged, somewhat sweet-scented, March and April; fr. 0.
5. *pendulum*, Swz. (*Lindl. l. c.;*—*Roxb. fl. ind.* 3, *p.* 458;—*J. Grah. Cat. B. pl. p.* 203.—C. crassifolium, *Wall. Cat.*—Epidendrum pendulum, *Roxb. Corom.* 1, *t.* 44.) 4. Paras. Peninsula of India. Khassya Mountains. Fl. striated with red and yellow. In H. C. G. fl. H. S.; fr. 0.
6. *Gibsonii*, Wall. MSS. 4. Paras. Khassya Mountains. In H. C. G. Fl.?
7. *triste*, Willd. (*Lindl. o. c. p.* 167;—*Roxb. fl. ind.* 3, *p.* 461;—*B. M.* 65, *t.* 3648.—*Paxt. Mag.* 5, *p.* 91;—Epidendrum teres, *Thunb.*—E. triste, *Forst.*—Luisia teretifolia, *Gaudich.*) 4. Paras. New Caledonia.

Marianne Islands. Japan. Nepal. Soonderbuns. Ceylon. Fl. small, pale green, inodorous, March and April; fr. rare.

8. *aphyllum*, Swz. (*Roxb. fl. ind.* 3, *p.* 462;—*J. Grah, Cat. B. pl. p.* 203.—Limodorum aphyllum, *Roxb. Corom.* 1, *t.* 41.) 4. Dry rocky places on the Coast of Coromandel. Fl. pale sulphur. In H. C. G. it fl. once at the beginning of the H. S. (*Roxb.*)

9. *alatum*, Roxb. (*fl. ind.* 3, *p.* 459.) 4. Paras. Soonderbuns. Chittagong. Fl. small, tinged with ferruginous-red, April and May. (*Roxb.*)

10. *striatum*, Wall. Khassya Mountains. 1836.

11. *inconspicuum*, Wall. Assam, 1837.

12. *longipetalum*, Wall. Khassya Mountains. 1836.

13. *Mastersii*, Wall. Khassya Mountains. 1837.

ACROPERA, Lindl. (*o. c. p.* 172;—*Endl. gen. pl.* 1, *p.* 199.)

1. *Loddigesii*, Lindl. (*l. c.*;—*B. M.* 64, *t.* 3563.—Maxillaria galeata, *Lindl. in Lodd. B. Cab.* 17, *t.* 1645.) 4. Paras. Mexico. Introduced in 1840. Has not fl.

GRAMMATOPHYLLUM, Bl. (*Lindl. o. c. p.* 173;—*Endl. gen. pl.* 1. *p.* 200.)

1. *? Finlaysonianum*, Lindl. (*l. c.*) 4. Paras. Penang. Has been introduced into H. C. G. Fl.? 1823.

GEODORUM, Jacks. (*Lindl. o. c. p.* 175;—*Endl. gen. pl.* 1, *p.* 200.)

1. *purpureum*, R. Br. (*Lindl. l. c.*—Limodorum nutans, *Roxb. Corom.* 1, *t.* 40; *fl. ind.* 3, *p.* 470.—Malaxis nutans, *Willd.*—M. cernua, *J. Grah. Cat. B. pl. p.* 203.) 4. Terrest. Coromandel. S. Concan. Bengal, (Serampore,) &c. Fl. largish, pale rose-coloured, inodorous, H. and R. S.; fr. C. S.

2. *dilatatum*, *B. R.* (*Lindl. l. c.*—*B. R.* 8, *t.* 675.—*B. Cab.* 18, *t.* 1797.—Limodorum recurvum, *Roxb. Corom.* 1, *t.* 39; *fl. ind.* 3, *p.* 469;—*Swz.*—*Willd.*—Malaxi scernua, *Willd.*—Otandra cernua, *Salisb.*—Astella cernua, *Bl. Rheed.* 11, *t.* 25.) 4. Terrest. Java. Circars. Bengal, (Serampore,) &c. Fl. middle-sized, white, with a small tinge of yellow, June and July; fr. C. S.

3. *pallidum*, Don. (*pr. fl. nep. p.* 31;—*Lindl. o. c. p.* 176, excl. syn. Geodori candidi, *Wall.*) 4. Terrest. Nepal.

4. *candidum*, Wall. (*Cat.* not Limodorum candidum, *Roxb.*) 4. Terrest. Moulmein. Fl. middle-sized, white, the lip tinged with rose, June and July; fr. Aug. and Sept. fragrant. Comes near to G. citrinum, but is quite distinct.)

? 5. *bicolor*, (Limodorum bicolor, *Roxb. fl. ind.* 3, *p.* 469.) 4. Terrest. Interior of Bengal. Fl. large, fragrant, green and pure white. In H. C. G. fl. June. (*Roxb.*)

? 6. *longifolium*, (Limodorum longifolium, *Roxb. fl. ind.* 3, *p.* 468.) 4. Terrest. Khassya Mountains. Fl. large, rosy. In H. C. G. fl. C. S. (*Roxb.*)

? 7. *ramentaceum*, (Limodorum ramentaceum, *Roxb. fl. ind.* 3, *p.* 467) 4.

Terrest. N. Bengal. Fl. largish, greenish-pink. In H. C. G. fl. March. (*Roxb.*)

? 8. *bracteatum*, (Limodorum bracteatum, *Roxb fl. ind.* 3, *p.* 466.) 4. Terrest. Garrow Hills. Fl. large, white. In H. C. G. fl. July and Aug. (*Roxb.*)

? 9. *plicatum*, (Limodorum plicatum, *Roxb. fl. ind.* 3, *p.* 465;—*Rumph.* 6, *t* 52, *f.* 1.) 4. Terrest. Sumatra. Fl. largish, of a mixture of yellow, green, and purple. In H. C. G. fl. July and Aug. (*Roxb.*)

ACANTHOPHIPPIUM, Bl. (*Lindl. o. c. p.* 177;—*Endl. gen. pl.* 1, *p.* 200.)

1. *silhetense*, Lindl. (*l. c.*) 4. Terrest. Khassya Mountains. Fl. very large, white, inodorous. Has been introduced into H. C. G. Fl.? (The specific name ought to be altered to *khassyanum*.)

EULOPHIA, R. Br. (*Lindl. o. c. p.* 180.)

1. *virens*, R. Br. (*Lindl. o. c. p.* 182;—*J. Grah. Cat. B. pl. p.* 202. —Serapias epidendræa, *Retz.*—Limodorum virens, *Willd.*;—*Roxb. Corom.* 1, *t.* 38; *fl. ind.* 3, *p.* 467;—*Swz.*—L. epidendroïdes, *Willd.* —*Rheed.* 12, *t.* 25.) 4. Terrest. Ceylon. Coromandel. Bengal. Fl. largish, greenish-yellow-striated, C. S.

2. *fusca*, Wall. Burma. 1827. In H. C. G.

CYRTOPODIUM, R. Br. (*Lindl. o. c. p.* 188;—*Endl. gen. pl.* 1, *p.* 200.)

1. *Andersonii*, R. Br. (*Lindl. l. c.*;—*B. M.* 43, *t.* 1800.—Cymbidium Andersonii, *B. Repos. t.* 651.) 4. Terrest. W. Indies. Introduced in 1840. Has not fl.

2. *punctatum*, Lindl. (*l. c.*;—*B. M.* 53, *t.* 3507.—Epidendrum punctatum, *L.*) 4. Terrest. St. Domingo. Introduced in 1840. Has not fl.

CYRTOPERA, Lindl. (*o. c. p.* 189;—*Endl. gen. pl.* 1, *p.* 201.)

1. *flava*, Lindl. (*l. c.*—*Royl. ill. t.* 88, *f.* 1.) 4. Terrest. Mussooree, 1841. Has been introduced into H. C. G. Fl.?

2. *plicata*, Lindl. (*o. c. p.* 190.) 4. Terrest. Morung Mountains, 1839. Has been introduced into H. C. G. Fl.?

CRYPTOCHILUS, Wall. (*Lindl. o. c. p.* 193;—*Endl. gen. pl.* 1, *p.* 202.)

1. *sanguineus*, Wall. (*Tent. fl. nep. t.* 26;—*Lindl. l. c.*) 4. Terrest. Nepal. 1816, in H. C. G. Fl.?

BRASSIA, R. Br. (*Lindl. o. c. p.* 212;—*Endl. gen. pl.* 1. *p.* 203.)

1. *maculata*, R. Br. (*Lindl. l. c.*;—*B. M.* 41, *t.* 1691.) 4. Paras. Jamaica. Introduced in 1840. Has not fl.

PHALÆNOPSIS, Bl. (*Lindl. o. c. p.* 213;—*Endl. gen. pl.* 1, *p.* 204.)

1. *amabilis*, Bl. (*Lindl. l. c.*—Epidendrum amabile, *L.*—Cymbidium amabile, *Roxb. fl. ind.* 3, *p.* 457;—*Paxt. Mag.* 7, *t.* 49;—*Rumph.* 6, *t.* 43.) 4 Paras. Amboyna. Fl. very large, pure white, fragrant. In H. C. G. fl. April and May. (*Roxb.*)

VANDA, R. Br. (*Lindl. o. c. p.* 215;—*Endl. gen. pl. p.* 204.)

1. *Roxburghii*, R. Br. (*Lindl. l. c.*;—*B. Reg.* 6, *t.* 506;—*B. M.* 48, *t.* 2245;—*J. Grah. Cat. B. pl. p.* 204.—Cymbidium tesselloïdes, *Roxb. fl. ind.* 3, *p.* 463.) 4. Paras. Bengal, (Serampore,) &c. Fl. largish,

inodorous, above checkered with yellow and dusky ferruginous purple, beneath white, H. and R. S.

2. *multiflora*, Lindl. (*o. c. p.* 216 ;—*coll. bot. t.* 38.—Aërides rigidum, *Sm. in Rees' cycl.*) 4. Paras. China. Nepal. Fl. smallish, yellow, with blood-coloured stains. In H. C. G. Fl. ?

3. *teres*, Lindl. (*o. c. p.* 217 ;—*B. Reg.* 21, *t.* 1809.—Dendrobium teres, *Roxb. fl. ind.* 3, *p.* 485.) 4. Paras. Chittagong. Khassya Mountains. Fl. 4 inches, lively rose-coloured with a rust-coloured horn, April and May.

4. *cristata*, Lindl. Nepal. 1821.

RENANTHERA, Lour. (*Lindl. o. c. p.* 217 ;—*Endl. gen. pl.* 1, *p.* 204.)

1. *coccinea*, Lour. (*Lindl. l. c.*;—*B. Reg.* 14, *t.* 1131 ;—*B. M.* 57, *t.* 2997-8.—*B. R.* 21, *t.* 1809.) 4. Paras. Cochin China, 1837. Has been introduced into H. C. G. Fl. ?

CAMAROTIS, Lindl. (*o. c. p.* 219 ;—*Endl. gen. pl.* 1, *p.* 204.)

1. *purpurea*, Lindl. (*o. c.* Aërides rostratum, *Roxb. fl. ind.* 3, *p.* 474.—*Paxt. Mag.* 7, *t.* 25.) 4. Paras. Khassya Mountains, 1836. Has been introduced into H. C. G. Fl. ?

MICROPERA, Lindl. (*o. c. p.* 219 ;—*Endl. gen. pl.* 1, *p.* 205.)

1. *pallida*, Lindl. (*l. c.*;—*B. Reg.* 18, *t.* 1522, *annot.*—Aërides pallidum, *Roxb. fl. ind.* 3, *p.* 475.) 4. Paras. Chittagong. Khassya Mountains. Fl. small, white or pale yellowish, with a faint tinge of rose, May and June.

SACCOLABIUM, Bl. (*Lindl. o. c. p.* 220 ;—*Endl. gen. pl.* 1, *p.* 205.)

1. *micranthum*, Lindl. (*l. c.*;—*B. Reg.* 1839, *app. p.* 38.) 4. Paras. Nepal. Khassya Mountains. Bengal, (Serampore.) Fl. small, violet rose-coloured, H. S.

2. *retusum*, (S. guttatum, *Lindl. l. c.*—Epidendrum retusum, *L.*;—Limodorum retusum, *Swz.*—Aerides retusum, *Swz.*—*J. Grah. Cat. B. pl. p.* 204.—A. guttatum, *Roxb. fl. ind.* 3, *p.* 471.—Sarcanthus guttatus, *Lindl.*;—*B. Reg.* 17, *t.* 1443.) 4. Paras. Java. Peninsula of India. Chittagong. Dacca. Khassya Mountains. Nepal. Fl. largish, white, spotted with rose-violet, H. and R. S.

3. *rigidulum*, Wall. Khassya Mountains. 1829.

4. *carinatum*, Wall. Khassya Mountains. 1827.

5. *papillosum*, Lindl. (*l. c.*;—*B. Reg.* 18, *t.* 1552.—Cymbidium præmorsum, *Swz.*;—*Roxb. fl. ind.* 3, *p.* 465 ;—*J. Grah. Cat. B. pl. p.* 203.—Epidendrum præmorsum, *Roxb. Corom.* 1, *t.* 43.—Aërides undulatum, *Sm. in Rees' cycl.*;—*Rheed.* 12, *t.* 4.) 4. Paras. The Circars. Prome. Fl. small, variegated with red and yellow, H. S.

6. *calceolare*, Lindl. (*o. c. p.* 223 ;—*B. M.* 38, *app. p.* 75.) 4. Paras. Khassya Mountains. Nepal. Fl. small, yellow, blotched with reddish-brown. In H. C. G.

ŒCEOCLADES, Lindl.

1. *ampullacea*, Lindl. (*Wall. Cat.*—Saccolabium rubrum, *Lindl. l. c. p.*

222?—Aërides ampullaceum, *Roxb. fl. ind.* 3, *p.* 476.) 2 Paras. Moulmein. Garrow Hills. Khassya Mountains, 1836. Nepal. Fl. small, rosy, May and June. (*Roxb.*)

Sarcanthus, Lindl. (*o. c. p.* 233;—*Endl. gen. pl.* 1, *p.* 206.)

1. *oxyphyllus*, Wall. Khassya Mountains. 1837. In H. C. G. Fl.?
2. *affinis*, Wall. Khassya Mountains. 1829. In H. C. G. Fl.?
3. *junceus*, Wall. Assam, 1840. Very near S. teretifolius, Lindl. B. M. 64, t. 3571.

Aërides, Lour. (*Lindl. o. c. p.* 238;—*Endl. gen. pl.* 1, *p.* 206.)

1. *odoratum*, Lour. (*R. Br.—Lindl. o. c. p.* 239.—A. cornutum, *Roxb. fl. ind.* 3, *p.* 472;—*B. Reg.* 18, *t.* 1485.) 2. Paras. China. Cochin China. Moulmein. Chittagong. Dacca. Khassya Mountains. Fl. large, white, with a tinge of rose, sweetly fragrant, April.
2. *affine*, Wall. (*Lindl. o. c. p.* 240.—Epidendrum geniculatum, *Buch. MSS.*) 2. Paras. Assam. Khassya Mountains. Nepal. Fl. large, rose-coloured, with some darker spots, H. S.
3. *refractum*, Wall. Khassya Mountains. 1833.
4. *tesellatum*, Wight. (*Lindl. l. c.*—Epidendrum tesellatum, *Roxb. Corom.* 1, *t.* 42.—Cymbidium tesellatum, *Swz.;—Roxb. fl. ind* 3, *p.* 462.) 2. Paras. Circars. Fl. large, greenish-yellowish, striated, R. S. (*Roxb.*)

? 5. *suaveolens*, Roxb. (*fl. ind.* 3, *p.* 473.) 2. Paras. Chittagong. Fl. small, yellow, purple spotted, delightfully fragrant, H. S. (*Roxb.*)

? 6. *rostratum*, Roxb. (*fl. ind.* 3, *p.* 474.) 2. Paras. Forests of Silhet. Fl. rose-coloured, H. S. (*Roxb.*)

? 7. *multiflorum*, Roxb. (*fl. ind.* 3, *p.* 475.) 2. Paras. Silhet. Fl. largish, light purple and white, with purple dots, H. S. (*Roxb.*)

? 8. *uncinatum*, Roxb. (*H. B. p.* 63.) 2. Paras. Silhet. Fl. H. S. (*Roxb.*)

Calanthe, R. Br. (*Lindl. o. c. p.* 249;—*Endl. gen, pl.* 1, *p.* 207.)

1. *veratrifolia*, R. Br. (*Lindl. o. c. p.* 249;—*B. Reg.* 9, *t.* 720.—Orchis triplicata, *Willim.*—Limodorum veratrifolium, *Willd.;—Rumph.* 6, *t.* 52, *f.* 2.) 2. Terrest. Java. Indian Archipelago. Ceylon. In H. C. G. Fl.?
2. *densiflora*, Lindl. (*o. c. p.* 250;—*B. Reg.* 19, *t.* 1646.) 2. Terrest. Khassya Mountains. 1836. In H. C. G. Fl.?

D. Ophryëæ.

(Ophrydeæ, *Lindl. gen. and sp. orch. pl. p.* 255;—*Endl. gen. pl.* 1, *p.* 208.)

Platanthera, L. C. Rich. (*Lindl. o. c. p.* 284;—*Endl. o. c. p.* 209.)

1. *uniflora*, Lindl. (*o. c. p.* 295.—Habenaria uniflora, *D. Don. pr. fl. nep. p.* 25.—Orchis uniflora, *Roxb. fl. ind.* 3, *p.* 452.) 2. Terrest. Garrow Hills. Khassya Mountains. Nepal. Fl. small, yellow, Aug. Sept. and Oct.

Peristylus, Bl. (*Lindl. o. c. p.* 297;—*Endl. gen. pl.* 1, *p.* 209.)

1. *elatus*, Wall. MSS. Assam, 1837. In H. C. G.?

Habenaria, Willd. (*Lindl. o. c. p.* 306;—*Endl. gen. pl.* 1, *p.* 210.)

1. *plantaginea*, Lindl. (*o. c. p.* 323.—Gymnadenia plantaginea, *Lindl. in Wall. Cat.*—Orchis platyphyllos, *Roxb. fl. ind.* 3, *p.* 450, not Willd.) 2. Terrest. Tenevelly. Travancore. Monghir. In H. C. G.
2. *platyphylla*, Spreng. (*l. c.*;—*J. Grah. Cat. B. pl. p.* 201, excl. syn. Roxb.—Orchis plantaginea, *Roxb. Corom.* 1, *t.* 37; *fl. ind.* 3, *p.* 450.—O. platyphyllos, *Willd.* not Roxb.—O. Roxburghii, *Pers.*) 2. Terrest. Circars. Vendalore. Fl. white, fragrant. In H. C. G. ?
3. *commelinæfolia*, Wall. (*Lindl. o. c. p.* 325.—Platanthera commelinæfolia *Lindl. in Wall. Cat.*—Orchis commelinæfolia, *Roxb. fl. ind.* 3, *p.* 451;—*J. Grah. Cat. B. pl. p.* 201.) 2. Terrest. Burma. S. Concan. Bengal, (Serampore,) &c. Fl. largish, white, inodorous, July and Aug.; fr. C. S.
4. *tenuis*, Griff. 2. Terrest. Bengal, (Serampore.) Fl. small, yellow. R. S.
5. *marginata*, Coleb. MSS. (*Hook. Ex. Fl. t.* 136.—*Lindl. gen. sp. orch. p.* 320.) 2. Terrest. Bengal, (Serampore.) Fl. small, green, R. S.

Satyrium, Swz. (*Lindl. o. c. p.* 335;—*Endl. gen. pl.* 1, *p.* 211.)

1. *cucullatum*, Thunb. (*fl. cap. ed. Schult. p.* 17;—*Lindl. o. c. p.* 339;—*B. Reg.* 5, *t.* 416, not Lodd.—S. bicorne, *Thunb. pr. p.* 6.—Orchis bicornis, *L.*; *B. Repos. t.* 315.) 2. Terrest. Hills near Cape Town. Introduced in March, 1841. Has not fl.

E. Arethusëæ.

Lindl. gen. and sp. orch. pl. p. 381.

Pogonia, Juss. (*Lindl. o. c. p.* 413;—*Endl. gen. pl.* 1, *p.* 218.)

1. *juliana*, Wall. (*Lindl. o. c. p.* 414.—Epipactis juliana, *Roxb. fl. ind.* 3, *p.* 453.) 2. Terrest. Bengal, (Calcutta, Serampore,) &c. Fl. middle-sized, pale green, with a pale pink red mottled lip, June.
2. *carinata*, Lindl. (*l. c.*—Epipactis carinata, *Roxb. fl. ind.* 3, *p.* 454;—*J. Grah. Cat. B. pl. p.* 205.) 2. Terrest. Bengal, (Serampore,) &c. Fl. middle-sized, pale green with a purple veined and spotted pale greenish-yellow lip, April.
3. *plicata*, Lindl. (*o. c. p.* 415.—Epipactis plicata, *Roxb. fl. ind.* 3, *p.* 454.) 2. Terrest. Bengal, (Calcutta, Serampore,) &c. Fl. middle-sized, yellowish green, with a pale rose-coloured lip, May and June.
4. *viridiflora*, Wall. MSS. In H. C. G.

? 5. *trinervia*, (Epipactis trinervia, *Roxb. fl. ind.* 3, *p.* 455.) 2. Terrest. Moluccas. Has been introduced into H. C. G. ?

? 6. *graminifolia*, (Epipactis graminifolia, *Roxb. fl. ind.* 3, *p.* 456.) 2. Terrest. Garrow Hills. Fl. middle-sized, yellow. Introduced into H. C. G. in 1812, but had not fl. in 1814.

? 7. *babianifolia*, (Epipactis babianifolia, *Roxb. H. B. p.* 63.) 2. Terrest. Garrow Hills. In H. C. G. fl. R. S. (*Roxb.*)

Anthogonium, Wall. (*Lindl, o. c. p.* 425.)

1. *gracile*, Wall. (*Lindl. l. c. p.* 426.) 2. Terrest. Khassya Mountains. Nepal. Fl. largish, blood-coloured, Feb.

VANILLA, Plum. (*Lindl. o. c. p.* 434; *Nat. syst. p.* 341;—*Endl. gen. pl.* 1, *p.* 220.)

1. *aromatica*, Swz. (*Lindl. l. c.*—V. flore viridi et albo, fructu nigricante, *Plum. ic. p.* 183, *t.* 188.—Epidendrum Vanilla, *L.*) 4. ⌣ Brazil, near Rio Janeiro. Minaes Geraes. Has not fl. here. The dried fruit is delightfully aromatic, and used in the manufacture of chocolate, liqueurs, and various articles of confectionery. (*Lindl.*)
2. *planifolia*, Andr. (*B. Repos. t.* 538;—*Lindl. o. c. p.* 435;—*Bl. Rumphia*, 1, *p.* 197, *t.* 68.—V. viridiflora, *Bl.*—Myobroma fragans, *Salisb. par. t.* 82.) 4. ⌣ W. Indies. Cultivated in India. Has not fl. here.

F. NEOTTIËÆ.

Lindl. Nat. Syst. p. 341; *Endl. gen. pl.* 1, *p.* 212.

GOODYERA, R. Br. (*Endl. gen. pl.* 1, *p.* 214.)

1. *procera*, Hook. (*Exot. fl. t.* 39;—*Spreng. syst.* 3, *p.* 703.—Neottia procera, *Wall.; B. Reg.* 8, *t.* 639.) 4. Terrest. Khassya Mountains. Nepal. Fl. smallish, white, C. S.

ZEUXINA, Lindl. (*B. Reg.* 19, *t.* 1618. *annot.*;—*Endl. gen. pl.* 1, *p.* 216.)

1. *sulcata*, Lindl. (*Wall. Cat.*—Pterygodium sulcatum, *Roxb. fl. ind.* 3, *p.* 452.) শ্বেত হুলী *Shwet-hoolee.* 4. Terrest. Bengal, (Serampore,) &c. Fl. small, white, and fr. C. S.

ANOECTOCHILUS, Bl. (*B. Reg.* 23, *t.* 2010;—*Endl. gen. pl.* 1, *p.* 216.)

1. *Roxburghii*, Lindl. (Chrysobaphus Roxburghii, *Wall.*) 4. Terrest. Khassya Mountains. Has not fl. here.

G. CYPRIPEDIEÆ.

Lindl. Nat. Syst. p. 341; *Endl. gen. pl.* 1, *p.* 220.

CYPRIPEDIUM, L. (*Spreng. syst.* 3, *p.* 682, *No.* 3044;—*Lindl. l. c.*)

1. *insigne*, Wall. (*Spreng. syst.* 3, *p.* 746;—*Lindl. coll. t.* 32;—*Hook. exot. fl. t.* 34;—*B. Cab. t.* 1321;—*B. M.* 62, *t.* 3412.) 4. Terrest. Khassya Mountains. Nepal. Fl. very large, green, variegated with brownish and deep brown spots, C. S., but rare.
2. *venustum*, Wall. (*Spreng. l. c.*;—*B. M.* 47, *t.* 2129;—*B. Reg.* 10, *t.* 788.) 4. Terrest. Khassya Mountains. Fl. large, white, green-striped, here purple haired, there marked with black spots and tinged with purple, C. S., but very rare.

Unknown to us, *Malaxis? plicata*, Roxb. (*fl. ind.* 3, *p.* 456.) 4. Paras. Sumatra. Fl. very small, greenish-yellow. In H. C. G. fl. July. (*Roxb.*)

A number of other Orchiaceæ have been introduced into H. C. G. chiefly from the Khassya Mountains, but we are not acquainted with their names.

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* *Octomeria graminifolia*, R. Br. B. M. 54, t. 2764, 4. Terrest. W. Indies —*O. Baueri*, Lindl. 4. Terrest. W. Indies.—*Chrysoglossum ornatum*, Bl. 4. Terrest. Java.—*Microstylis Wallichii*, Lindl. 4. Terrest. Khassya Mountains.—*Dienia congesta*, Lindl.; B. Reg. 10, t. 825. 4. Ter-

rest. Nepal. China.—*D. calycina*, Lindl. 4. Terrest. Mexico.—*D. Myurus*, Lindl. 4. Terrest. Mexico.—*Liparis purpurascens*, Lindl. 4. Bourbon. Mauritius.—*Spathoglottis plicata*, Bl. 4. Terrest. Penang. Java.—*Bletia florida*, R. Br.; B. Reg. 17, t. 1401. 4. Terrest. Trinidad.—*B. obcordata*, Lindl. 4. Terrest. Silhet.—*B. speciosa*, Kth. 4. Terrest. Mexico.—*B. villosa*, A. Rich. 4. Terrest. Mauritius.—*B. acutipetala*, Hook; B. M. 60, t. 3217. 4. Terrest. S. Carolina.—*B. Shepherdii*, Hook; B. M. 61, t. 3319. 4. Terrest. Jamaica.—*B. patula*, Hook.; B. M. 63, t. 3518. 4. Terrest. Hayti.—*B. Parkinsonii*, Hook.; B. M. 66, t. 3736. 4. Terrest. Mexico.—*Arundina chinensis*, Bl. 4. Terrest. Java. China.—*Phaius maculatus*, Lindl. (Bletia Woodfordii, Hook.; B. M. 54, t. 2719.) 4. Terrest. Nepal.—*Cytheris cordifolia*, Lindl. 4. Terrest. Khassya Mountains.—*Apaturia senilis*, Lindl. 4. Terrest. Khassya Mountains.—*Tainia speciosa*, Bl. 4. Terrest. Java.—*Peristeria elata*, Hook.; B. M. 58, t. 3116. 4. Terrest. Panama.—*P. pendula*, Hook.; B. M. 63, t. 3479. 4. Terrest. Trinidad.—*Geodorum pictum*, Lindl. 4. Terrest. Tropical N. Holland.—*G. citrinum*, Jacks. B. Repos. t. 626. 4. Terrest. Chittagong.—*Acanthophippium javanicum*, Bl. 4. Terrest. Java.—*Eulophia guineensis*, Lindl. B. Reg. 8, t. 686. 4. Terrest. Guinea.—*E. graminea*, Lindl. 4. Terrest. Singapore.—*Galeandra Baueri*, Lindl. 4. Terrest. Guiana.—*Zygopetalum Mackayi*, Hook. (Eulophia Mackaiana, Lindl.; B. Reg. 17, t. 1433.) 4. Terrest. Brazil.—*Z. rostratum*, Hook.; B. M. 55, t. 2819. 4. Terrest. Demerara.—*Cyrtopera Woodfordii*, Lindl. (Cyrtopodium Woodfordii, Hook.; B. M. 43, t. 1814.) 4. Terrest. Trinidad.—*Cryptarrhena lunata*, R. Br.; B. Reg. 2, t. 153. 4. Terrest. Jamaica.—*Calanthe curculigoides*, Wall. 4. Terrest. Penang. Singapore.—*Platanthera Susannæ*, Lindl.; Rumph. 5, t. 99, f. 2. 4. Terrest. Amboyna. Java. China. Nepal.—*P. robusta*, L. 4. Terrest. Prome.—*Peristylus latifolius*, Lindl. 4. Terrest. Bourbon. Mauritius.—*P. Hamiltonianus*, Lindl. 4. Terrest. Morung Hills.—*P. goodyeroïdes*, Lindl. 4. Terrest. Nepal.—*Cœloglossum lacertiferum*, Lindl. 4. Terrest. Tavoy.—*Habenaria digitata*, Lindl. 4. Terrest. Khassya Mountains.—*H. macroceras*, Spreng. B. M. 56, t. 2947. 4. Terrest. Jamaica.—*H. longicauda*, Hook.; B. M. 57, t. 2957. 4. Terrest. Demerara.—*H. leptoceras*, Hook.; B. M. 54, t. 2726. 4. Terrest. Rio Janeiro.—*H. elongata*, R. Br. 4. Terrest. Tropical N. Holland.—*H. lucida*, Wall. 4. Terrest. Rangoon.—*H. ochroleuca*, R. Br. 4. Terrest. Tropical N. Holland.—*H. gigantea*, Hook.; B. M. 62, t. 3374. 4. Terrest. Concans. Kandalla. Nepal.—*Thelymitra canaliculata*, R. Br. 4. Terrest, Tropical N. Holland.—*Diuris alba*, R. Br. 4. Terrest. Tropical N. Holland.—*Calochilus campestris*, R. Br. 4. Tropical N. Holland.—*Microtis parviflora*, R. Br. 4. Tropical N. Holland.—*Caladenia alba*, R. Br. 4. Tropical N. Holland.—*C. carnea*, R. Br. 4. Tropical N. Holland.—*Pterostylis ophioglossa*, R. Br. 4. Terrest. Tro-

pical N. Holland.—*Cynorchis fastigiata*, Pet. Th. 4. Terrest. Mauritius.—*Satyrium amoenum*, A. Rich. 4. Terrest. Bourbon.—*S. nepalense*, D. Don. 4. Terrest. Nepal. Khassya Mountains.—*Arnottia mauritiana*, A. Rich. 4. Terrest. Mauritius.—*Crybe rosea*, Lindl. 4. Terrest. Mexico.—*Vanilla bicolor*, Lindl. 4. ◡ Demerara.—*Neottia picta*, Sims.; B. M. 38, t. 1562. 4. Terrest. Trinidad.—*N. grandiflora*, Hook.; B. M. 54, t. 2730. 4. Terrest. Rio Janeiro.—*N. elata*, Swz.; B. M. 46, t. 2026. 4. Terrest. W. Indies.—*N. pudica*, Swt. (Spiranthes pudica, Lindl.; B. Reg. 7, t. 602.) 4. Terrest. China.—*N. bicolor*, Ker.; B. Reg. 10, t. 794. 4. Terrest. Trinidad.—*N. calcarata*, Swz.; B. M. 62, t. 3403. 4. Terrest. St. Domingo.—*N. aphylla*, Hook.; B. M. 55, t. 2797. 4. Terrest. Trinidad.—*N. plantaginea*, Hook. exot. fl. t. 226. 4. Terrest. Nepal.—*Goodyera discolor*, Ker.; B. R. 4, t. 271. 4. Terrest. S. America.—*Ulantha grandiflora*, Hook. (Neottia? grandiflora, Hook.; B. M. 57, t. 2956.) 4. Terrest. St. Vincent.—*Sauroglossum elatum*, Lindl.; B. Reg. 19, t. 1618. 4. Terrest. Brazil.—*Ponthieva glandulosa*, R. Br. (Neottia glandulosa, Sims.; B. M. 22, t. 842.) 4. Terrest. W. Indies.—*P. petiolata*, Lindl. (B. Reg. 9, t. 760.) 4. Terrest. St. Vincent.—*Pelexia spiranthoïdes*, Lindl.; B. Reg. 12, t. 985. 4. Terrest. W. Indies.—*Stenorrhynchus orchioïdes*, Rich. (Neottia orchioïdes, Swz.; B. M. 26, t. 1036.) 4. Terrest. Jamaica.—*S. speciosus*, Rich. (Neottia speciosa, Jacq.; B. M. 34, t. 1374.) 4. Terrest. W. Indies.

ORDER CCXXXVI.—APOSTASIACEÆ, Lindl. Nat. Syst. p. 342.

East Indian perennial herbaceous plants, by Lindl. referred to 3 genera. Properties unknown. (*Lindl.*)

* *Apostasia Wallichii*, R. Br. Wall. pl. as. rar. 1, t. 84, 4. Terrest. Nepal.—*A. nuda*, R. Br.; Wall. pl. as. rar. 1, t. 85, 4. Terrest. Penang.

ORDER CCXXXVII.—COCOACEÆ, (PALMACEÆ, Lindl. Nat. Syst. p. 343.)

THE PALM TRIBE.

"Inhabitants of the tropics of either world, they hardly range beyond 35° in the southern, or 49° in the northern hemisphere. Particular species scarcely extend beyond their own peculiar and contracted limits, on which account there are few countries favorable for their production in which some local and peculiar species are not found. The few that are dispersed

over many lands are chiefly *Cocos nucifera*, *Acrocomia sclerocarpa*, and *Borassus flabelliformis*. It is probable that the number of species thus scattered over the face of nature will be found to amount to 1000 or more. Of these, not a few love the humid banks of rivulets and streams; others occupy the shores of the ocean, and some ascend into alpine regions. Some collect into dense forests, others spring up singly in clusters over the plains, (*Martius.*) If this statement be true as to the probable number of Palms, how little can be known of their structure, seeing that not more than 175 are at this moment, (1836,) described, of which 119 are S. American, 14 African, and 42 E. Indian. The testimony of Martius is, however, confirmed by Humboldt, who also asserts that there must be an incredible number still to discover in equinoctial regions, especially if we consider how little is yet known of Africa, Asia, New Holland, and America. A different opinion is entertained by Professor Schouw of Copenhagen. He seems to consider that we are acquainted already with the greater part of the Palms; for he says, "it appears from the report of travellers that such Palm woods as those of S. America are less frequent in other parts of the world. Africa and N. Holland seem to be less favorable to this tribe, for on the Congo, Smith found only 3-4 Palms; in Guinea we know merely of the same number, and of the other Africa Palms, 6 belong to the Isles of Bourbon and France; New Holland has, in the torrid zone, three species, while Forster's Prodromus of the Flora of the South Sea Islands contains four." "The most northern limit of Palms is that of Chamærops Palmetto, *Michx.* in N. America, in lat. 34°-36°, and of C. humilis, in Europe, near Nice, in 43°-44° N. lat. They are found in the southern hemisphere as low as 38° in New Zealand." (*Lindl.*) In S. Africa has only been found 1 species, viz. Phoenix reclinata, *Jacq.* (*Harvey.*) Properties under the species.

A. Arecëæ.

(Arecineæ, *Mart.*;—*Endl. gen. pl.* 1, *p.* 245.)

Chamædorea, Willd. (*Spreng syst.* 2, *p.* 13, *No.* 1332;—*Endl. l. c.*)

1. *gracilis*, Willd. (*Spreng. syst.* 2, *p.* 136.) ♄ S. America. Has been introduced into H. C. G. Fl.?

Hyophorbe, Gärtn. (*Endl. gen. pl.* 1, *p.* 245.)

1. *indica*, Gärtn. (*fr.* 2, *p.* 186, *t.* 120, *f.* 1;—*Mart. palm.* 164, *t.* 143, *f.* 1.—Areca lutescens, *Bory.*; *Spreng. syst.* 2, *p.* 139.—Sublimia, *Commers. MSS.*) ♄ Bourbon. Introduced in 1839. Has not fl.

Oreodoxa, Willd. (*Endl. gen. pl.* 1, *p.* 247.)

1. *oleracea*, Endl. (Areca oleracea, *Jacq. amer.* 278, *t.* 170; *ed. pict.* 135, *t.* 235;—*Roxb. H. B. p.* 68.—Euterpe caribæa, *Spreng. syst.* 2, *p.* 140.) *Edible Cabbage Tree.* ♄ W. Indies. Introduced into H. C. G. in 1807, but had not fl. up to 1814. In the Serampore garden it has now been cultivated for more than 15 years, without fl. The green top of the trunk is eaten in the W. Indies, both raw and cooked.

2. *regia*, Humb. and Bonpl. (*Schult. syst.* 8, *p.* 1491.—Oenocarpus

regius, *Spreng. syst.* 2, *p.* 140.) ♄ Cuba, in the vicinity of Havannah. Has been introduced into H. C. G. Fl. ?

ARECA, L. (*Spreng. syst.* 2, *p.* 13, *No.* 1345;—*Endl. gen. pl.* 1. *p.* 247.)

1. *Catechu*, L. (*Spreng. syst.* 2, *p.* 139;—*Roxb. Corom.* 1, *t.* 76; *fl. ind.* 3, *p.* 615;—*J. Grah. Cat. B. pl. p.* 225.—A. Faufel, *Gärtn. fr.* 1, *p.* 19, *t.* 7, *f.* 2;—*Rheed.* 1, *t.* 5, 6, 7, 8;—*Rumph.* 1, *t.* 4.) গুয়া *Gooa. Betel-nut-palm.* ♄ Native place unknown. Commonly cultivated all over India. Fl. small, white, fragrant. H. S.; fr. Aug. and Sept. The Betel-nut is remarkable for its narcotic and intoxicating power. A kind of spurious Catechu is prepared from it. (*Ainslie.*)
2. *Dicksonii*, Roxb. (*fl. ind.* 3, *p.* 616.) ♄ Mountains of Malabar. In H. C. G. Fl. ? The poorer people use the nut as a substitute for the common Betel-nut; but no other part of the tree is turned to any useful purpose. (*Roxb.*)
3. *triandra*, Roxb. (*fl. ind.* 3, *p.* 617.) বন গুয়া *Bun-gooa.* ♄ Chittagong. Fl. minute. May to January; fr. April.
4. *gracilis*, Roxb. (*fl. ind.* 3, *p.* 619;—*J. Grah. Cat. B. pl. p.* 225.) রাম গুয়া *Ram-gooa.* ♄ S. Concan. Chittagong. Silhet. In H. C. G. Fl. Feb. and March; fr. R. S.

SEAFORTHIA, R. Rr. (*pr. p.* 267;—*Spreng syst.* 2, *p.* 563, *No.* 1990;—*Endl. gen. pl.* 1, *p.* 247.)

1. *elegans*, R. Br. (*l. c.*;—*Spreng. syst.* 2, *p.* 623.) ♄ Tropical N. Holland. Introduced in 1839.

HARINA, Buch. (*Mem. Wern. soc.* 5, *p.* 312;—*Endl. gen. pl.* 1, *p.* 248.)

1. *caryotoïdes*, Buch. (*l. c.*—Wallichia (*not DC.*) caryotoïdes, *Roxb. Corom.* 3, *t.* 295.—Wrightia (*not R. Br.*) caryotoïdes, *Roxb. fl. ind.* 3, *p.* 621.) ♄ Chittagong. Fl. R. S.; fr. C. S.

ARENGA, Labill. (*Mem. d'instit.* 4, *p.* 209;—*Endl. gen. pl.* 1, *p.* 248.)

1. *saccharifera*, Labill. (Borassus Gomutus, *Lour.*—Saguerus Rumphii, *Roxb. fl. ind.* 3, *p.* 626.—Gomutus *v.* Saguerus, *Rumph.* 1, *t.* 13.) ♄ Moluccas. Sunda Islands. Cochin China. Malay Islands, &c. Fl. ♂ largish, yellow-purple, ♀ very small, H. and R. S.; fr. Feb. This palm yields sago, sugar, palm-wine, and from the black horse-hair-like fibres, surrounding the petioles of the leaves, very good cordage and cables. In Java and Baleyn, it is employed for making sugar. Its sap is boiled down to syrup, and allowed to concrete, but it always retains some degree of moisture. The best is of a yellowish-colour, the inferior kinds, called saccharum nigrum, which are blackish-coloured, are commonly mixed with the muscovados of the cane. The tree itself is highly desirable for cultivation in low situations near the coasts of India. One of the trees cut down in H. C. G. yielded about 150 pounds of good Sago meal. (*Roxb. Royle.*)

CARYOTA, L. (*Spreng. syst.* 2, *p.* 563, *No.* 1992;—*Endl. gen. pl.* 1, *p.* 248.)

1. *urens*, L. (*Spreng. syst.* 2, *p.* 623;—*Roxb. fl. ind.* 3, *p.* 625;—*J. Grah.*

Cat. B. pl. p. 226;—*Gärtn. fr.* 1, *p.* 20, *t.* 7, *f.* 3;—*Jacq. fragm. bot. t.* 12, *f.* 1;—*Lam. ill. t.* 897;—*Rheed.* 1, *t.* 11;—*Rumph.* 1, *t.* 14.) ♄ Moluccas. Coromandel. The Ghauts and Concans. Cultivated here. Fl. small, greenish-white, H. and R. S. This palm, where it grows in abundance, is highly valuable to the natives. It yields them, during the hot season, an immense quantity of sap. The constituents of this, as well as that of the preceding species, being such as may easily be made to undergo the fermentation process, we find that, instead of being boiled down to procure sugar, the sap is allowed to undergo the vinous fermentation, when it forms Palm-wine, often called *Toddy*. This being distilled, yields the spirit called *Arrack*, from the Arabic Aruk, the general term for spirit. The best trees will yield at the rate of 100 pints of sap in the 24 hours. The pith of the trunk of old trees is said to be equal to the best sago. The natives make it into bread, or boil it into thick gruel. (*Roxb. Royle.*)

2. *horrida*, Jacq. (*fragm. bot. p.* 20;—*Spreng. syst.* 2, *p.* 623.) ♄ Caracas. Has been introduced into H. C. G. Fl.?
3. *sobolifera*, Wall. Mauritius.

B. Lepidocaryëæ.

(Lepidocaryinæ, *Mart.*;—*Endl. gen. pl.* 1, *p.* 248.)

Calamus, L. (*Spreng. syst.* 2, *p.* 3, *No.* 1156;—*Endl. o. c. p.* 249.) *Ratan.*

1. *humilis*, Roxb. (*fl. ind.* 3, *p.* 773.) ♄ Chittagong. Introduced into H. C. G. in 1801, but had not fl. up to 1814.
2. *erectus*, Roxb. (*fl. ind.* 3, *p.* 774.) ♄ Silhet. Introduced into H. C. G. in 1811. Fl.? The poorer natives use the seeds as a substitute for Betel-nut, (*Roxb.*)
3. *Draco*, Willd. (*Spreng. syst.* 2, *p.* 17;—*Schult. syst.* 8, *p.* 1323;—*Roxb. fl. ind.* 3, *p.* 774;—*Rumph.* 5, *t.* 58, *f.* 1.) L. ♄ ◡ Moluccas. Sumatra. Fl. March and April. The resinous, reddish-coloured substance, called *Dragon's Blood*, is produced in the Isle of Socotora by Dracæna Draco; but in Sumatra and the Malay Islands, varieties of a similar substance are yielded by the Calamus Draco. (*Royle.*)
4. *latifolius*, Roxb. (*fl. ind.* 3, *p.* 775.) L. ♄ ◡ Chittagong. Introduced into H. C. G. in 1801, and fl. for the first time in Nov. and Dec. 1809.
5. *rudentum*, Lour. (*Spreng. syst.* 2, *p.* 17;—*Schult. syst.* 8, *p.* 1327;—*Roxb. fl. ind.* 3, *p.* 776;—*J. Grah. Cat. B. pl. p.* 225;—*Rumph.* 5, *t.* 53.) L. ♄ ◡ Moluccas. Cochin China. Introduced into H. C. G. in 1798, where after 13 years it fl. for the first time in H. S.
6. *verus*, Lour. (*Spreng. l. c.*;—*Schult. syst.* 8, *p.* 1323;—*Roxb. fl. ind.* 3, *p.* 776;—*Rumph.* 5, *t.* 54, *f.* 2.) L. ♄ ◡ Moluccas. Cochin China. Introduced into H. C. G. in 1798, and began to fl. 12 years after.
7. *extensus*, Roxb. (*fl. ind.* 3, *p.* 777.) L. ♄ ◡ Silhet. Introduced into H. C. G. in 1811. Fl.?

8. *quinquenervius*, Roxb. (*fl. ind.* 3, *p.* 777.) L. ♄ ◡ Silhet. Introduced into H. C. G. in 1811. Fl. ?
9. *Rotang*, L. (*Schult. syst.* 8, *p.* 1322 ;—*Roxb. fl. ind.* 3, *p.* 777 ;—*J. Grah. Cat. B. pl. p.* 225, excl. syn. C. petræus, *Lour.*—*Spreng. syst.* 2. *p.* 17.) বেত *Bet.* L. ♄ ◡ Bengal, (Serampore.) Coromandel. S. Concan. Ram Ghaut, &c. Fl. R. S. ; fr. C. S. Yields the common ratans.
10. *fasciculatus*, Roxb. (*fl. ind.* 3, *p.* 779.) বড় বেত *Buro-bet.* L. ♄ ◡ Bengal, (Serampore,) &c. Fl. R. S. ; fr C. S. The stems divested of the sheaths of the leaves are about as thick as a man's fore-finger, and employed for walking sticks, like those of Rhapis flagelliformis, *L.* (*Roxb.*)
11. *polygamus*, Roxb. (*fl. ind.* 3, *p.* 780.) L. ♄ ◡ Chittagong. Introduced into H. C. G. in 1801, but had not fl. in 1814.
12. *tenuis*, Roxb. (*fl. ind.* 3, *p.* 780.) L. ♄ ◡ Chittagong. Introduced into H. C. G. in 1801, but had not fl. in 1814.
13. *gracilis*, Roxb. (*fl. ind.* 3, *p.* 781.) L. ♄ ◡ Chittagong. Fl. May and June, fr. C. S.
14. *monoicus*, Roxb. (*fl. ind.* 3, *p.* 783.) L. ♄ ◡ Native place in India uncertain. Fl. R. S. ; fr. C. S.
15. *hostilis*, Wall. MSS. In H. C. G. Native place ?

Canes and ratans, the stems of different species of Calamus, form considerable articles of commerce. They are exported from the valleys along the foot of the Himalayas into the plains, though the species yielding them are not well known. (*Royle.*)

ZALACCA, Reinw. (*Endl. gen. pl.* 1, *p.* 249.)

1. *edulis*, Reinw. and Bl. (*Schult. syst.* 8, *p.* 1333, *obs.* 3 ;—*Wall. pl. as. rar.* 3, *t.* 222, 23, 24.—Calamus Zalacca, *Gärtn. fr.* 2, *p.* 267, *t.* 139, *f.* 1 ;—*Spreng. syst.* 2, *p.* 17 ;—*Roxb. fl. ind.* 3, *p.* 773.—Zalacca, *Rumph.* 5, *t.* 57, *f.* 2.) L. ♄ Moluccas. Malay Islands. Sumatra. Java. Malayan Peninsula to Tenasserim, and to the shores of the rivers Saluen and Attran, in Martaban. Has been several years in the Garden here, without fl.
2. *asamica*, Wall. MSS. In H. C. G.

SAGUS, Gärtn. (*Endl. gen. pl.* 1, *p.* 230.)

1. *lævis*, Rumph. (*Amb.* 1, *p.* 96.—S. inermis, *Roxb. fl. ind.* 3, *p.* 623.) ♄ Moluccas. Sumatra. Borneo, &c. Introduced into H. C. G. in 1798, but had not fl. up to 1814. From the pith of this palm, the *granulated sago* is prepared. *Pearl sago* is said to be granulated and bleached at Singapore, where it is brought from the islands in which the tree is grown. (*Royle.*)
2. *farinifera*, Gärtn. (*fr.* 2, *p.* 186, *t.* 120, *f.* 3.—S. Rumphii. *Willd.* ;—*Roxb. fl. ind.* 3, *p.* 623.—S. spinosus, *Roxb. H. B. p.* 68.—Metroxylon Sagus, *König.* ;—*Spreng. syst.* 2, *p.* 138.) ♄ Moluccas. Malay Islands. Peninsula of Malacca. Introduced into H. C. G. in 1798,

but had not fl. up to 1814. Like the Plantain it propagates itself by suckers from the roots of the old trees; the seeds are therefore in general abortive. The pith of this palm, the Malay Sago-palm, is the staff of life to the inhabitants of the Moluccas. (*Roxb.*)

C. Borassëæ.

(Borassineæ, *Mart.*;—*Endl. gen. pl.* 1, *p.* 250.)

Borassus, L. (*Spreng. syst.* 3, *p.* 894, *No.* 3188.—*Endl. l. c.*)

1. *flabelliformis*, L. (*Spreng. syst.* 3, *p.* 905;—*Roxb. Corom.* 1, *t.* 71, 72; *fl. ind.* 3, *p.* 790;—*J. Grah. Cat. B. pl. p.* 226.—Lontarus domestica, *Rumph.* 1, *t.* 10;—*Gärtn. fr.* 1, *p.* 21, *t.* 8;—*Rheed.* ♀ 1, *t.* 9. ♂ 1, *t* 10.) তাল গাছ *Tal-gachh. Palmyra-tree.* L. ♄ Common in the islands of the Indian Archipelago, as well as in the Peninsula and southern parts of India, whence it extends northwards along the Malabar Coast, and is described as almost the only tree seen on the flatter alluvium near the sea at Guzerat. It may also occasionally be seen as far north as 30°, or near Saharunpore. (*Royle.*) Fl. H. S.; fr. C. S. The sap of this Palm is abundant, mild, saccharine, and demulcent. It is collected by wounding the spathe, and drunk in its recent state as a refreshing beverage. The same is the case with the sap of Cocos nucifera, Arenga saccharifera, Caryota urens, Phoenix sylvestris, &c. The *fruit* is eaten, and by many considered very pleasant and refreshing. The *leaves* are employed for making punkahs. *Wood* very serviceable.

Latania, Commers. (*Spreng. syst.* 2, *p.* 563, *No.* 1988;—*Endl. gen. pl.* 1, *p.* 251.)

1. *borbonica*, Lam. (*Spreng. syst.* 2, *p.* 623, excl. syn. Jacq.) ♄ Bourbon. Has been introduced into H. C. G. Fl. ?

Bentinckia, Berry. (*Endl. gen. pl.* 1, *p.* 251.)

1. *Condapana*, Berry. (*Roxb. fl. ind.* 3, *p*, 621.) ♄ Mountains of Travancore. In H. C. G. fl. June; fr. March. (*Roxb.*)

D. Coryphëæ.

(Coryphinæ, *Mart.*;—*Endl. gen. pl.* 1, *p.* 252.)

Corypha, L. (*Spreng. syst.* 2, *p.* 13, *No.* 1338;—*Endl. gen. pl. p.* 252.)

1. *umbraculifera*, L. (*Spreng. syst.* 2, *p.* 138;—*Schult. syst.* 8, *p.* 1308;—*Roxb. fl. ind.* 2, *p.* 177;—*Gärtn. fr.* 1, *p.* 18, *t.* 7, *f.* 1;—*J. Grah. Cat. B. pl. p.* 224; excl. syn. Rumph.—*Rheed.* 3, *t.* 1-12, incl.) তালী *Talee.* L. ♄ Ceylon. Moluccas. Introduced into H. C. G. in 1798, but had not fl. up to 1814. In the Serampore garden it has been cultivated for more than 25 years without fl. This is the *Talipat,* or great *Fan-palm* of Ceylon, the leaves of which are used for thatching.
2. *Utan*, Lam. (*Spreng. syst.* 2, *p.* 138;—*Roxb. fl. ind.* 2, *p.* 178.—Taliera silvestris, *Bl.*; *Schult. syst.* 8, *p.* 1307.—Lontarus silvestris, *Rumph.* 1, *t.* 11.) ♄ Moluccas. Introduced into H. C. G. in 1798, but had not fl. up to 1814.

3. *Taliera,* Roxb. (*Corom.* 3, *t.* 255, 56; *fl. ind.* 2, *p.* 174.—Taliera bengalensis, *Spreng. syst.* 2, *p.* 18;—*J. Grah. Cat. B. pl. p.* 224.—T. Tali, *Mart.; Schult. syst.* 8, *p.* 1306.) তাড় *Tara.* L. ♄ Bengal, but scarce about Calcutta and Serampore. Fl. March and April.; fr. Nov. and Dec. The leaves are employed by the natives to write on with their pointed steel-bodkins, and also to tie the rafters of their houses. (*Roxb.*)

4. *elata,* Roxb. (*fl. ind.* 2, *p.* 176.—Taliera elata, *Wall. MSS.*) বজুর *Bujoor.* L. ♄ Bengal. Fl. March and April; fr. Oct. and Nov.

Livistona, R. Br. (*pr. p.* 267;—*Spreng. syst.* 2, *p.* 13, *No.* 1337;—*Endl. gen. pl.* 1, *p.* 252.)

? 1. *mauritiana,* Wall. MSS. ♄ Mauritius. Has been cultivated in the garden here for more than 15 years without fl.

Licuala, Rumph. (*Spreng. syst.* 2, *p.* 3, *No.* 1157;—*Schult. syst.* 8. *p.* 1301;—*Endl. gen. pl.* 1, *p.* 252.)

1. *peltata,* Roxb. (*fl. ind.* 2, *p.* 179;—*J. Grah. Cat. B. pl. p.* 225.) ♃ Chittagong. Fl. whitish, inodorous, Nov.; fr. May.

2. *spinosa,* Wurmb. (*Spreng. syst.* 2, *p.* 18;—*Schult. syst.* 8, *p.* 1301;—*Roxb. fl. ind.* 2, *p.* 181;—*J. Grah. Cat. B. pl. p.* 225.—Licuala arbor, *Rumph.* 1, *t.* 9.—Corypha Licuala, *Lam.*—C. Pilearia, *Lour.*) ♄ Moluccas. Celebes. Cochin China. Introduced into H. G. C. in 1798, but had not fl. up to 1814.

Sabal, Adans. (*Spreng. syst.* 2, *p.* 13, *No.* 1333;—*Endl. gen. pl.* 1, *p.* 253.)

1. *Adansonii,* Guerns. (*Schult. syst.* 8, *p.* 1485;—*B. M.* 35, *t.* 1434.—Sabal minus, *Pers.;—Spreng. syst.* 2, *p.* 137.) ♄ New Orleans. Has been introduced into H. C. G. Fl.?

2. *Hystrix,* Nutt. (*Schult. syst.* 8, *p.* 1487.—Chamærops Hystrix, *Pursh.;—Spreng. syst.* 2, *p.* 137.—*Roxb. H. B. p.* 25.) ♄ E. Florida. Georgia. Introduced into H. C. G. in 1809, but had not fl. in 1814.

Chamærops, L. (*Spreng. syst.* 2, *p.* 13, *No.* 1336;—*Endl. gen. pl.* 1, *p.* 253.)

1. *humilis,* L. (*Spreng. syst.* 2, *p.* 137;—*Schult. syst.* 2, *p.* 1488;—*B. M.* 47, *t.* 2152;—*B. Repos. t.* 599;—*Roxb. H. B. p.* 25.—Chamæriphes major, *Gärtn. fr.* 1, *p.* 26, *t.* 9, *f.* 4.—Phoenix humilis, *Cav. ic.* 2, *p.* 12, *t.* 115.) ♃ S. Europe. N. Africa. Fl. C. S.; fr. H. S.

2. *mitis,* Mayer. (*Roxb. H. B. p.* 25.) ♃ Guiana. Introduced into H. C. G. in 1804, but had not fl. in 1814.

3. *Griffithiana,* Wall. MSS. ♃ Khassya Mountains. Has not fl. in the garden here.

4. *Martiana,* Wall. (*pl. as. rar.* 3, *t.* 211.) ♃ Deyra-Dhoon. Introduced in 1840. The fruit edible. (*Wall.*)

Rhapis, L. fil. (*Spreng. syst.* 2, *p.* 13, *No.* 1335;—*Endl. gen. pl.* 1, *p.* 253.)

1. *flabelliformis,* Ait. (*Spreng. syst.* 2, *p.* 137;—*Schult. syst.* 8, *p.* 1490. ♂.—*B. M.* 33, *t.* 1371.) ♄ China. Japan. In H. C. G. Fl.?

PHŒNIX, L. fil. (*Spreng. syst.* 2, *p.* 13, *No.* 1339;—*Endl. gen. pl.* 1, *p.* 253.)

1. *dactylifera*, L. (*Spreng. syst.* 2, *p.* 138;—*Lam. ill. t.* 893;—*Gärtn. fr.* 1, *p.* 23, *t.* 9, *f.* 2;—*Roxb. fl. ind.* 3, *p.* 786;—*J. Grah. Cat. B. pl. p.* 224.) *Date-tree.* ♄ Tropical and Middle Asia. N. Africa. Deccan. Baroda. Cultivated in S. Europe. Does not thrive in Lower Bengal. In H. C. G. some male trees have lived to flower, soon after which, however, they uniformly perished. The sap of this tree is seldom employed, because the fruit is thereby injured. *Baskets* are made with the leaf-stalks.
2. *farinifera*, Roxb. (*Corom.* 1, *t.* 74; *fl. ind.* 3, *p.* 785;—*Spreng. syst.* 2. *p.* 138.—P. pusilla, *Gärtn. fr.* 1, *p.* 24, *t.* 9, *f.* 2.—*Lour.*) ♄ Sandy hills, at a short distance from the Sea, near Coringa. Fl. Jan. and Feb.; fr. May. Its stem contains *fæcula*, which is used as food by the natives in times of famine. The *leaflets* are wrought into mats, for sleeping on, &c. The *common petioles* are split into three or four, and used to make common baskets of various kinds, which, however, are inferior to those constructed of bamboo. *Fruit* edible. (*Roxb.*)
3. *acaulis*, Buch. (*Roxb. fl. ind.* 3, *p.* 783;—*Spreng. syst.* 2, *p.* 138.) জঙ্গলী খাজুর *Junglee-khajoor.* ♄ Behar. Fl. C. S.; fr. April and May. *Fruit* edible. (*Roxb.*)
4. *sylvestris*, Roxb. (*fl. ind.* 3, *p.* 787;—*J. Grah. Cat. B. pl. p.* 224.—Elate sylvestris, *L.*; *Spreng. syst.* 2, *p.* 141;—*Rheed.* 3, *t.* 22-25, incl.) খাজুর *Khajoor. Wild Date.* ♄ Common all over India. Fl. March, fr. C. S. This tree yields, Palm-wine during the C. S. But free extraction destroys the appearance and fertility of the tree, the fruit of those that have been cut for drawing off the juice being very small. The mode of drawing off the juice is by removing the lower leaves and their sheaths, and cutting a notch into the pith of the tree near the top, whence it issues and is conducted by a small channel made of a bit of the Palmyra palm-leaf into a pot suspended to receive it. On the coast of Coromandel this Palm-juice is either drunk fresh from the tree, or boiled down into sugar, or fermented for distillation, when it gives out a large portion of ardent spirit, commonly called *Paria-aruk* on the coast of Coromandel. There as well as in Guzerat, and epecially in Bengal, the Khajur is the only tree whose sap is much employed for boiling down to sugar, mixed more or less with the juice of the sugar-cane. At the age of from 7-10 years, when the trunk of the trees will be about 4 feet high, they begin to yield juice, and continue productive for 20 or 25 years. It is extracted from Nov. till Feb., during which period, each tree is reckoned to yield from 120 to 240 pints of juice, which averages 180 pints. Every 12 pints or pounds is boiled down to one of *Goor* or *Jagari*, and 4 of this yield one of good

powder sugar, so that the average produce of each tree is about 7 or 8 pounds of sugar annually. This date sugar is not so much esteemed as cane-sugar, and sells for about one-fourth less. (*Roxb.*) Baskets, boxes, mats and punkahs are made with the leaf-stalks.

5. *paludosa*, Roxb. (*fl. ind.* 3, *p.* 789.) হিঁতাল *Hintal.* 5 Soonderbuns, where it forms a considerable part of those impenetrable woods, which completely cover that extensive tract of country. Fl. H. S.; fr. C. S. The trunks of the smaller trees serve for making sticks. The larger ones serve for rafters to the houses of the natives, and the leaves for thatch. (*Roxb.*)

E. Cocoëæ.

(Cocoïnæ, *Mart.*;—*Endl. gen. pl.* 1, *p.* 254.)

Elæïs, Jacq. (*Spreng. syst.* 2, *p.* 13, *No.* 1350;—*Endl. o. c. p.* 255.)

1. *guineënsis*, Jacq. (*Amer. t.* 172; *ed. pict. t.* 257;—*Gärtn. fr.* 1, *p.* 17, *t.* 6, *f.* 2;—*Lam. ill. t.* 896;—*Spreng. syst.* 2, *p.* 141.) *Oil Palm.* ♄ Guinea. W. Indies. Introduced in 1836, and thriving, though growing very slowly. Palm-oil is obtained from the fruit of this tree, which is also said to yield the best kind of Palm-wine.

Cocos, L. (*Spreng. syst.* 2, *p.* 14, *No.* 1353;—*Endl. gen. pl.* 1, *p.* 256.)

1. *nucifera*, L. (*Spreng. syst.* 2, *p.* 141;—*Roxb. fl. ind.* 3, *p.* 614;—*J. Grah. Cat. B. pl. p.* 225.—Coccos nucifera, *Gärtn. fr.* 1, *p.* 16, *t.* 4, 5.—*Rheed.* 1, *t.* 1-4, incl.—*Rumph.* 1, *t.* 1, 2.) নারিকেল *Narikel.* L. ♄ Shores of equinoctial Asia, and its islands, &c. Fl. H. S.; fr. C. S. The *root* is sometimes masticated instead of the Betle-nut. In Brazil baskets are made of the *small fibres.* The *hard case of the stem* is converted into drums, and used in the construction of huts. The lower part is so hard as to take a beautiful polish, when it resembles agate. The reticulated substance at base of the leaf is formed into cradles, and, as some say, into a coarse kind of cloth. The *unexpanded terminal bud* is a delicate article of food. The *leaves* furnish thatch for dwellings, and materials for fences, buckets, and baskets; they are used for writing on, and make excellent torches; potash in abundance is yielded by their ashes. The *midrib of the* leaf serves for oars. The *juice of the flower and stems* is replete with sugar, and is fermented into excellent wine, or distilled into arrack, or the sugary part is separated as Jagary. The tree is cultivated in many parts of the Indian islands, for the sake not only of the sap and *milk* it yields, but for the *kernel* of its fruit, used both as food and for culinary purposes, and as affording a large proportion of *oil* which is burned in lamps throughout India, and forms also a large article of export to Europe. The fibrous and uneatable rind of the fruit is not only used to polish furniture and to scour the floors of rooms, but is manufactured into a kind of cordage, (*Koir,*) which is nearly equal in strength to hemp, and which Roxburgh designates as the very best of all materials for cables, on account of its great elasticity and strength. The

sap of this as well as of other palms is found to be the simplest and easiest remedy that can be employed for removing constipation in persons of delicate habit, especially European females. (*Ainslie. Roxb. Lindl.*)

2. *flexuosa*, Mart. (*Spreng. syst.* 2, *p.* 141.) ♄ Brazil. Has been introduced into H. C. G. Fl. ?

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* *Hyospathe elegans*, Mart. ♄ Brazil.—*Leopoldinia pulchra*, Mart. Brazil.—*L. insignis*, Mart. Brazil.—*Euterpe oleracea*, Mart. Brazil.—*E. edulis*, Mart. Brazil.—*Oenocarpus Bacaba*, Mart. Guiana.—*O. minor*, Mart. Brazil.—*Areca crinita*, Bory. Mascarenhas Islands.—*A. humilis*, Willd. Amboyna.—*A. rubra*, Bory. Mascarenhas Islands.—*Plectocomia elongata*, Mart. Java.—*Ceratolobus glaucescens*, Bl. Java.—*Dæmonorops melanochætes*, Bl. Java.—*Mauritia vinifera*, Mart. Bahia.—*M. flexuosa*, Mart. Essequebo.—*Lepidocaryon gracile*, Mart. Brazil.—*L. tenue*, Mart. Brazil.—*Lodoicea Sechellarum*, Labill.; B. M. 54, t. 2734-8 (incl.) Sechelles.—*Hyphæne coriacea*, Gärtn. Upper Egypt. Introduced into Bombay, in 1828.—*Geonoma simplifrons*, Willd. Brazil. Caracas.—*G. acaulis*, Mart. Guiana.—*Corypha rotundifolia*, Lam. Moluccas. Cochin China.—*C. cerifera*, Arruda. S. America.—*C. dulcis*, Humb. and Bonpl. New Spain.—*C. tectorum*, Humb. and Bonpl. Caraccas. Cumana.—*C. Pumos*, Humb. and Bonpl. Mexico.—*C. maritima*, Humb. and Bonpl. Cuba.—*C. nana*, Humb. and Bonpl. Mexico.—*Licuala pumila*, Bl. Java.—*L. rotundifolia*, Bl. Java.—*Chamærops Mocini*, Humb. and Bonpl. Mexico.—*Thrinax radiata*, Lodd. Trinidad.—*Cocos campestris*, Mart. Brazil.—*C. oleracea*, Mart. Brazil.—*C. coronata*, Mart. Brazil.—*Desmoncus polyacanthus*, Mart. Brazil.—*D. orthocanthus*, Mart. Brazil.—*Bactris mitis*, Mart. Brazil.—*B. riparia*, Mart. Brazil.—*Guilielma speciosa*, Mart. Brazil.—*Acrocomia sclerocarpa*, Mart. W. Indies.—*Astrocaryon aculeatum*, Meyer. Guiana.—*A. vulgare*, Mart. Brazil.—*Attalia humilis*, Mart. Brazil.—*A. amygdalina*, Humb. New Granada.—*Elæis melanococca*, Gärtn. New Granada.—*Diplothemium campestre*, Mart. Brazil.—*D. littorale*, Mart. Brazil.—*Maximiliana regia*, Mart. Brazil.—*M. insignis*, Mart. Brazil.

ORDER CCXXXVIII.—PONTEDERACEÆ. Ach. Rich.—Lindl. Nat. Syst. p. 347.

Water or marshplants, by Lindl. referred to 4 genera. Of these, 5 species have been found in N. America; 14 in S. America Mexico, and the W. Indies; and 7 (*Pontedera*) all over the E. Indies. Monochoria, *Presl.* is unknown to us. Properties of no known use.

PONTEDERA, L. (*Spreng. syst.* 2, *p.* 5, *No.* 1192;—*Endl. gen. pl.* 1, *p.* 138.)

1. *vaginalis*, L. (*Spreng. syst.* 2, *p.* 42;—*Schult. syst.* 8, *p.* 1145;—*Bl. enum. pl. jav. p.* 32;—*Roxb. Corom.* 2, *t.* 110; *fl. ind.* 2, *p.* 121;—*J. Grah. Cat. B. pl. p.* 222, excl. syn. Rumph.—*Rheed.* 11, *t.* 44.) নৌকা *Nouka.* ♃. Java. Coromandel. Concans. Bengal, (Serampore.) Tavoy. Sukanaghur. Monghir. Nepal. Fl. largish, bright-blue, R. and C. S.; fr. C. S.
2. *hastata*, L. (excl. syn. Rheed;—*Spreng. l. c.*;—*Schult. syst.* 8, *p.* 1146;—*Bl. l. c.*;—*Lour.*;—*Roxb. Corom.* 2, *t.* 111; *fl. ind.* 2, *p.* 121;—*J. Grah. l. c.*) ♃. Cochin China. Java. Coromandel. Concans. Bengal, (Serampore,) &c. Fl. largish, bright-blue-violet, R. and C. S.; fr. C. S.
3. *plantaginea*, Roxb. (*fl. ind.* 2, *p.* 123.) ♃. Both Peninsulas of India. Bengal, (Serampore.) Silhet. Nepal. Fl. smallish, bright deep-blue, R. S.; fr. C. S.
4. *dilatata*, Buch. (*in Syme's emb. to Ava, p.* 474, with a plate;—*B. Repos. t.* 490;—*Roxb. fl. ind.* 2, *p.* 123;—*Spreng. l. c.*;—*Schult.* 8, *p.* 1147.) ♃. Rangoon. Fl. pale-blue, R. and C. S.; fr. C. S.
5. *sagittata*, Roxb. (*H. B. p.* 22; *fl. ind.* 2, *p.* 124; not Presl.) ♃. Both Peninsulas of India. Silhet. Assam. Introduced into H. C. G. in 1810.

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* *Pontedera Loureiriana*, Schult. (P. cordata, Lour.; excl. syn.) ♃. Cochin China.—*P. pauciflora*, Bl. ♃. Rice-fields of Java.—*P. rotundifolia*, L. ♃. Surinam.—*P. crassipes*, Mart. (P. azurea, Hook; B. M. 56, t. 2932, excl. syn. with the exception of P. crassipes.) ♃. Brazil.—*P. azurea*, Swz. ♃. Jamaica.—*P. ovalis*, Mart. ♃. Brazil.—*P. lanceolata*, Nutt. ♃. Georgia.—*P. cordifolia*, Schult. fil. ♃. Brazil.—*P. belophylla*, (P. sagittata, Presl.; not Roxb.) ♃. Mexico.—*Heteranthera oblongifolia*, Mart. ♃. Brazil.

ORDER CCXXXIX.—MELANTHACEÆ, R. Br.—Lindl. Nat. Syst. p. 347.

THE COLCHICUM TRIBE.

Herbs, by Lindl. (excluding Paridëæ, and adding Ledebouria and Asagræa) referred to 29 genera. Of these Spreng. syst. enumerates 32 species for N. America; 11 for Europe; 8 for N. Holland and the Society Islands; 3 for S. America and Mexico; 3 for N. Africa; 2 for Siberia; 1 for Caucasus; 1 for Senegal; and 2 for Japan and China. In S. Africa have been discovered 20 species (*Harvey*); and in the E. Indies 14; viz. 1 of *Tofieldia*, (Himalayas); 3 of *Anguillaria*, (1 from the Himalayas, Coro-

mandel, Prome, and N. Holland, 1 herb Heyn., 1 Spreng. (from Cochin China); 1 of *Ledebouria*, (Peninsula of India, Bundlekund); 1 of *Tricyrtis*, (Himalayas); 7 of *Disporum*, (Himalayas, Khassya Mountains, Neelgherries); and 1 of *Drapiezia*. (Java.)

"This order is poisonous in every species, but more especially in the Colchicum and Veratrum. The cormus of the former is a well known acrid cathartic, narcotic, and diuretic; the latter is a nauseous, dangerous emetic. The medicinal properties of the root of Veratrum are owing to a peculiar alkaline principle called Veratrin, which acts with singular energy on the membrane of the nose, exciting violents neezings, though taken in very minute quantity. When taken internally in very small doses, it produces excessive irritation of the mucous coat of the stomach and intestines; and a few grains are found fatal to the lower animals. *Turner*." (*Lindl.*)

ORNITHOGLOSSUM, Salisb. (*Spreng. syst.* 2, *p.* 14, *No.* 1370;—*Endl. gen. pl.* 1, *p.* 135.)

1. *glaucum*, Salisb. (*Parad. p.* 54;—*Schult. syst.* 8, *p.* 1536.—O. viride, *Ait.*;—*Spreng.* 2, *p.* 147.—Lichtensteinia lævigata, *Willd.*—Cymation lævigatum, *Spreng.* 2, *p.* 147.—Melanthium viride, *Thunb.*; *B. M.* 25, *t.* 994.) 4. C. G. H. Fl. middle-sized, green, edged with brown. Introduced in March 1841. Has not fl. yet.

ANGUILLARIA, R. Br. (*pr. p.* 273;—*Spreng. syst.* 2, *p.* 14, *No.* 1368;—*Endl. gen. pl.* 1, *p.* 136.)

1. *indica*, R. Br. (*l. c.*;—*Spreng. syst.* 2, *p.* 146;—*Schult. syst.* 8, *p.* 1538;—*Wall. pl. as. rar.* 3, *t.* 259;—*J. Grah. Cat. B. pl. p.* 222, excl. syn. Roth.—Melanthium indicum, *L.*) 4. Tropical N. Holland. Coromandel. The Concans. Kandalla. Prome. Nepal. Kamaon. Fl. smallish, dark-purple, inodorous. Introduced into H. C. G. Fl.?

MELANTHIUM, L. (*Spreng. syst.* 2, *p.* 14, *No.* 1367;—*Endl. gen. pl.* 1, *p.* 136.)

1. *junceum*, Jacq. (*Icon. rar.* 2, *t.* 451.—*Spreng. syst.* 2, *p.* 146;—*B. M.* 16, *t.* 558.—M. triquetrum, *Thunb.*;—*Schult. syst.* 8, *p.* 1547, 48.—Phalangium, *Houtt. Lin. pfl. syst. t.* 80, *f.* 3.) 4. C. G. H. Fl. middle-sized, whitish, each petal marked with two dark crimson spots. Introduced in March 1841. Has not fl. yet.

ANDROCYMBIUM, Willd. (*Spreng. syst.* 2, *p.* 14, *No.* 1359;—*Endl. gen. pl.* 1, *p.* 136.)

1. *eucomoïdes*, Willd. (*Spreng. syst.* 2, *p.* 143;—*Schult. syst.* 8, *p.* 1526.—Melanthium eucomoïdes, *Jacq. ic. rar.* 2, *t.* 452;—*B. M.* 17, *t.* 641.) 4. C. G. H. Fl. smallish, green. Introduced in Murch 1841. Has not fl. yet.

WURMBEA, Thunb. (*Spreng. syst.* 2, *p.* 15, *No.* 1373;—*Endl. gen. pl.* 1, *p.* 136.)

1. *purpurea*, Dryand. (*Spreng. syst.* 2, *p.* 147;—*Schult. syst.* 8, *p.* 1542.—Melanthium spicatum, *Houtt. nat. hist.* 12, *p.* 429, *t.* 85, excl. syn. Burm.;—*B. M.* 19, *t.* 694.) 4. C. G. H. Fl. middle-

sized, purple, with a darker petal-edge. Introduced in March 1841. Has not fl. yet.

Ledebouria, Roth. (*Spreng. syst.* 2, *p.* 8, *No.* 1261;—*Endl. gen. pl.* 1, *p.* 136.)

1. *hyacinthoïdes*, Schult. (*syst.* 7, *p.* 365.—L. hyacinthina, *Roth.*;—*Spreng. syst.* 2, *p.* 69;—*B. M.* 60, *t.* 3226;—*J. Grah. Cat. B. pl. p.* 220.—Melanthium hyacinthinum, *Heyn. MSS.*—Erythronium indicum, *Rottl.* according to Spreng.—Anthericum hyacinthoïdes, *Willd. MSS.*) ♃. Masulipatam. Madras. Both Concans. Bundlecund. Fl. small, greenish-white, and base red. Has been introduced into H. C. G. Fl.? *Root* employed in cases of strangury and fever in horses. (*Ainslie.*)

Bæometra, Salisb. (*Endl. gen. pl.* 1, *p.* 136.)

1. *Breyniana*, (B. columellaris, *Salisb. MSS. in Transact. hort. soc.* 1, *p.* 330.—Kolbea Breyniana, *Schlecht.—Spreng. c. p. p.* 142;—Jania Breyniana, *Schult. syst.* 8, *p.* 1528.—Tulipa Breyniana, L.; *Spreng. syst.* 2, *p.* 146;—*Roxb. H. B. p.* 24;—*B. M.* 20, *t.* 767.—Melanthium uniflorum, *Jacq. ic. rar.* 2, *t.* 450.) ♃. C. G. H. Fl. largish, deep-yellow within, crimson without, with the ungues generally of a deep crimson. Introduced in March 1841. Has not fl. yet.

Colchicum, Tournef (*Spreng. syst.* 2, *p.* 14, *No.* 1358;—*Endl. gen. pl.* 1, *p.* 137.)

Several species of this genus have been introduced here over and over again, but without success.

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* *Helonias angustifolia*, Michx. (H. læta β. Minor, Ker.; B. M. 37, t. 1540.) ♃. Humid places in Georgia.—*H. dubia*, Michx. ♃. Georgia. Florida.—*Asagræa officinalis*, Lindl.; B. Reg. 1839, t. 33. ♃. Mexico. —*Veratrum Sabadilla*, Retz. ♃. Mexico. W. Indies.—*Burchardia umbellata*, R. Br. ♃. Port Jackson.—*Anguillaria biglandulosa*, R. Br. ♃. Port Jackson.—*Schelhammera undulata*, R. Br.; B. M. 54, t. 2712. ♃. Port Jackson.—*S. multiflora*, R. Br. ♃. Tropical N. Holland.—*Disporum falvum*, Salisb. (Uvularia chinensis, Ker.; B. M. 23, t. 916.) ♃. China.

ORDER CCXL.—SMILACEÆ, R. Br.—Endl. gen. pl. 1, p. 152.

THE SMILAX TRIBE.

Herbs or shrubs, sometimes climbing, by Endl. referred to 15 genera. Of these, about 54 species, according to Spreng. belong to N. America; 26 to S. America, Mexico, and the W. Indies; 11 to Europe; 9 to New Holland and the South Sea Islands; 3 to Japan; 3 to China; 6 to S.

Africa; 1 to the Mascarenhas; 1 to N. Africa; 1 to the Canaries; 3 to Iberia, and Caucasus; 2 to Armenia; and 2 to Siberia. In the E. Indies have been discovered 1 species of *Trillium*, (Himalayas); 1 of *Paris*, (Himalayas); 1 of *Stretopus*, (Himalayas); 4 of *Smilacina*, (Himalayas); 9 of *Polygonatum*, (Himalayas, Khassya Mountains); 27 of *Smilax*, (all over India); 4 of *Tupistra*, (Himalayas, Khassya Mountains, Singapore, Amboyna); 2 of *Stemona*, (Circars, Moluccas, Cochin China, Silhet); 4 of *Teta*, (Chittagong, Penang, Banks of the Attran); 10 of *Liriope*, (Himalayas, Rangoon, Peninsula of India); and 1 of *Bulbospermum*, (Java). Properties under the species.

POLYGONATUM, Tournef. (*Endl. gen. pl.* 1, *p.* 154.)

1. *oppositifolium*, D. Don. (Convallaria oppositifolia, *Wall. as. res.* 13, *p.* 380, with a plate;—*B. Cab. t.* 640;—*Hook. exot. fl.* 2, *t.* 125;—*Spreng. syst.* 2, *p.* 76;—*Don. pr. fl. nep. p.* 47;—*Schult. syst.* 7, *p.* 298, and 8, *p.* 1669;—*B. M.* 63, *t.* 3529.) ♃. Khassya Mountains. Nepal. Fl. nearly 1 inch, greenish-white, marked with 6 lines of reddish dots, C. S.; fr. 0.

SMILAX, Tournef. (*Spreng. syst.* 2, *p.* 9, *No.* 1272;—*Endl. gen. pl.* 1, *p.* 155.)

1. *Sarsaparilla*, L. (*Spreng. syst.* 2, *p.* 100;—*Plenck. t.* 712;—*Blackw. t.* 393.) ♄ ◡ Virginia. Has been cultivated for many years in the garden here, without flowering.
2. *Roxburghiana*, Wall. (*Cat.*—S. laurifolia, *Roxb. fl. ind.* 3, *p.* 793, not L.) ♄ ◡ Garrow Hills. Khassya Mountains. Introduced into H. C. G. in 1811, but had not fl. in 1814.
3. *retusa*, Roxb. (*fl. ind.* 3, *p.* 793.) ♄ ◡ Bengal, (Serampore.) Fl. small, greenish-white, H. S.; fr. R. S.
4. *grandifolia*, (S. macrophylla, *Roxb. fl. ind.* 3, *p.* 793;—*J. Grah. Cat. B. pl. p.* 219, excl. syn.; not Willd.) L. ♄ ◡ Concans. Deccan. Bengal. Fl. smallish, greenish-yellow, H. and R. S.; fr. Sept. and Oct.
5. *ovalifolia*, Roxb. (*fl. ind.* 3, *p.* 794;—*Spreng. c. p. p.* 137;—*J. Grah. Cat. B. pl. p.* 219.) কুমারিকা *Koomarika*. L. ♄ ◡ Bengal, (Serampore.) Concans. Fl. smallish, greenish, H. S.; fr. C. S.
6. *prolifera*, Roxb. (*fl. ind.* 3, *p.* 795.) L. ♄ ◡ Bengal, (Serampore. Poorneeya.) Rajmahl. Fl. smallish, green, Feb. and March; fr. R. S.
7. *maculata*, Roxb. (*fl. ind.* 3, *p.* 796;—*Spreng. c. p. p.* 137;—*Royle. ill. t.* 94, *f.* 1.) ♄ ◡ Nepal. Fl. small, white, fragrant, C. S.; fr. H. S.
8. *Bona nox*, L. (*Spreng. syst.* 2, *p.* 102.) ♄ ◡ Carolina. Introduced into H. C. G. before 1814. Fl.?
9. *herbacea*, L. (*Spreng. l. c.*;—*B. M.* 44, *t.* 1920.) ♃. N. America. Introduced into H. C. G. before 1814. Fl.?
10. *Pseudochina*, L.? (*Spreng. l. c.?*—*Sloane hist.* 1, *p.* 31, *t.* 143, *f.* 1.?—*Roxb. fl. ind.* 3, *p.* 792.) ♄ ◡ Virginia.? Jamaica.? Garrow Hills. Introduced into H. C. G. in 1810, but had not fl. in 1814.

11. *lanceæfolia*, Roxb. (*fl. ind.* 3, *p.* 792; not S. lanceolata, Wall. nor Lour.) ♄ ◡ Silhet. Introduced into H. C. G. in 1811, but had not fl. in 1814. Its large, tuberous roots are much used by the natives in medicine. (*Roxb.*)
12. *glabra*, Roxb. (*fl. ind.* 3, *p.* 792.) ♄ ◡ Garrow Hills. Silhet. Introduced into H. C. G. in 1811, but had not fl. in 1814. The natives of Silhet use a decoction of the large, tuberous, fresh root for the cure of sores and syphilitic complaints. (*Roxb.*)
13. *grandis*, Wall. MSS. (S. macrophylla, *Roxb.* not Willd.) In H. C. G. Fl. ?
14. *stipulacea*, Bojer. (*Hort. Mauritianus* 352.) Mauritius.
15. *anceps*, Willd, Mauritius. Bombay.

Genera allied to Smilaceæ.

A. Aspidistreæ.

Endl. gen. pl. 1, *p.* 155.

Rohdea, Roth. (*Spreng. syst.* 2, *p.* 10, *No.* 1291;—*Endl. l. c.*)

1. *japonica*, Roth. (*Spreng. syst.* 2, *p.* 118, excl. syn.;—*Schult. syst.* 7, *p.* 172.—Orontium japonicum, *Thunb;*—*B. M.* 23, *t.* 898.) ♃. Japan. Fl. small, yellowish, C. S; fr. 0.

Tupistra, Ker. (*Spreng. syst.* 2, *p.* 10, *No.* 1292;—*Endl. gen. pl.* 1, *p.* 156.)

1. *squalida*, Ker. (*B. M.* 40, *t.* 1655;—*B. Reg.* 9, *t.* 704;—*B. Cab. t.* 515;—*Spreng. syst.* 2, *p.* 118.—Rohdea Tupistra, *Schult. syst.* 7, *p.* 173.) ♃. Amboyna. Fl. middle-sized, pale-dingy-purplish, scentless, R. S.; fr. 0.
2. *nutans*, Wall. (*B. Reg.* 15, *t.* 1223;—*B. M.* 58, *t.* 3054.—Rohdea nutans, *Schult. syst.* 8, *p.* 1653.) ♃. Khassya Mountains. Fl. middle-sized, pale yellowish-brown, streaked with purple, Dec.; fr. 0.

? 3. *aurantiaca*, Wall. (*Cat.*) ♃. Nepal. Introduced in 1830, but has not fl. yet.

4. *angustifolia*, Wall. Khassya Mountains.

Aspidistra, Ker. (*Spreng. syst.* 2, *p.* 174, *No.* 1489;—*Endl. gen. pl.* 1, *p.* 156.)

1. *lurida*, Ker (*B. Reg.* 8, *t.* 626;—*B. Reg.* 51, *t.* 2499;—*Spreng. syst.* 2, *p.* 243.—Macrogyne convallariæfolia, *Lk.*) ♃. China. Fl. middle-sized, greenish-dark-purple. Introduced in August, 1841.
2. *punctata*, Lindl. (*B. Reg.* 12, *t.* 977;—*Spreng. c. p. p.* 152.) ♃. China. Fl. small, pale-green outside, dotted with purple inside. Introduced in August 1841.

B. Ophiopogonëæ.

Endl. gen. pl. 1, *p.* 156.

Liriope, Lour. (*Lindl. Nat. Syst. p.* 354.—Ophiopogon, *Ait.*;—*Spreng. syst.* 2, *p.* 8, *No.* 1260;—*Endl. l. c.*)

1. *japonica*, Lindl. (Ophiopogon japonicus, *Ker.*; *B. M.* 27, *t*, 1063;—*Spreng. syst.* 2, *p.* 97.—Convallaria japonica, *L. fil.*;—*Red. lil.* 2, *t.*

80.—Polygonastrum compressum, *Mönch.*—Slateria japonica, *Desv.*—Flüggea japonica, *Rich.*;—*Schult. syst.* 7, *p.* 308.) 4. Japan. China. Fl. smallish, whitish-blue, R. and C. S.

2. *spicata,* Lour. (Ophiopogon spicatus, *Ker.*; *B. Reg.* 7, *t.* 593;—*Spreng. l. c.*;—*B. Cab. t.* 694.—Convallaria spicata, *Thunb.*—Flüggea spicata, *Schult. syst.* 7, *p.* 309.) 4. Japan. China. Kamaon. Nepal. Khassya Mountains. Cochin China. Fl. smallish, violet. Introduced in August 1841,

3. *latifolia,* Lindl. (Ophiopogon latifolius, *Wall. MSS.*) 4. Native place? In H. C. G.

4. *Wightiana,* Lindl. (Ophiopogon Wightianus, *Wall. MSS.*) 4. Native place? In H. C. G.

Teta, Roxb. (*MSS. in. Lamb. herb.*—Peliosanthes, *Spreng. syst.* 2, *p.* 9, *No.* 1274;—*Endl. gen. pl.* 1, *p.* 156.)

1. *viridiflora,* Roxb. (*MSS. in Lamb. herb.*; *H. B. p.* 24; *fl. ind.* 2, *p.* 165.—Peliosanthes Teta, *Andr. B. Repos.* 9, *t.* 605, (where Roxb's, name is quoted, but rejected.) *B. M.* 32, *t.* 1302;—*Red. lil. t.* 415;—*Spreng. syst.* 2, *p.* 103;—*Schult. syst.* 7, *p.* 362.) 4. Chittagong. Fl. small, deep-green, inodorous, March and April; fr. July and Aug.

2. *petiolaris,* (Peliosanthes petiolaris, *Wall. MSS.*) In H. C. G.

C. Eriospermeæ.

Endl. gen. pl. 1, *p.* 156.

Eriospermum, Jacq. (*Spreng. syst.* 2, *p.* 7, *No.* 1227;—*Endl. l. c.*)

1. *latifolum,* Jacq. (*ic. rar.* 2, *t.* 420;—*Spreng. syst.* 2, *p.* 76;—*Schult. syst.* 7, *p.* 502.—E. latifolium, *a. B. M.* 34, *t.* 1382.—Ornithogalum capense, *L.*) 4. C. G. H. Fl. small, yellowish-white, with a mixture of green and sometimes purple, Feb.; fr. 0.

2. *lanceæfolium,* Jacq. (*ic. rar.* 2, *t.* 421;—*Spreng. l. c.*;—*Schult. o. c. p.* 503.) 4. C. G. H. Fl. small, greenish-yellow, Feb. and March.

D. Stemoneæ.

(Roxburghiaceæ, *Endl. gen. pl.* 1, *p.* 157.)

Stemona, Lour. (Roxburghia, *W. Jones, Spreng. syst.* 2, *p.* 171, *No.* 1433; —*Endl. l. c.*)

1. *gloriosoïdes,* (Roxburghia gloriosoïdes, *Dryand.*; *Roxb. Corom.* 1, *t.* 32; *fl. ind.* 2, *p.* 234, excl. syn. Lour. and Rumph.?—*Spreng. syst.* 2, *p.* 214;—*J. Grah. Cat. B. pl. p.* 227.—R. gloriosa, *Pers.*—*B. M.* 36, *t.* 1500, excl. syn. Sm. and Rumph.?) 4. ⌒ Circar Mountains. Fl. large, greenish-white-reddish, fœtid, C. S.; fr. 0.

2. *tuberosa,* Lour. (Roxburghia viridiflora, *Sm. exot. bot.* 1, *p.* 111, *t.* 57;—*Roxb. H. B. p.* 28;—*Wall. pl. as. rar.* 3, *t.* 282.—Ubium polypoïdes, *Rumph.* 5, *t.* 129.) 4. ⌒ Moluccas. Cochin China. Siam. Chittagong. Silhet. Fl. large, green, H. S.; fr. C. S.

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* *Polygonatum verticillatum,* All. (Convallaria verticillata, L;—E. B. 2, t. 128.) 4. Europe. Mussooree.—*P. multiflorum,* All. (Convallaria

multiflora. L.;—E. B. 4, t. 279.) ♃ Europe. Mussooree.—*P. cirrhifolium*, (Convallaria cirrhifolia. Wall. Cat.) ♃. Nepal.—*P. punctatum*, (Convallaria punctata, Wall. Cat.) ♃. Nepal.—*Smilax zeylanica*, L. ♄ ◡ Ceylon.—*S. Villandia*, Hb. Buch.; Royle t. 94, f. 2. ♄ ◡ Morung.—*S. dentata*, Humb. Cuba.—*S. papyracea*, Duham. Cayenne.—*S. longifolia*, Rich. Cayenne.—*S. oblongata*, Swz. W. Indies.—*S. lappacea*, Humb. Caracas.—*S. acuminata*, Willd. W. Indies.—*S. syphilitica*, Humb. S. America.—*S. havanensis*, Jacq. Havannah.—*S. cumanensis*, Humb. Jamaica.—*S. elliptica*, R. Br. Tropical New Holland.—*S. latifolia*, R. Br. Tropical New Holland.—*Liriope intermedia*, Lindl.; (Ophiopogon intermedius, D. Don.; Royle. ill. t. 96, f. 1.) ♃. Nepal.—*Teta humilis*, (Peliosanthes humilis, Andr.; B. M. 37, t. 1532.) ♃. Penang.

ORDER CCXLI.—GILLIESIACEÆ, Lindl. Nat. Syst. p. 348.

Small herbaceous plants, of 2 genera, containing but a few species, natives of Chile. "Properties unknown." (*Lindl.*)

* *Gilliesia graminea*, Lindl.; B. Reg. 12, t. 992; B. M. 54, t. 1716. ♃. Valparaiso.

ORDER CCXLII.—DIOSCOREACEÆ, Lindl. Nat. Syst. p. 359.

THE YAM TRIBE.

Twining shrubs, by Lindl. referred to 4 genera. Of these, Spreng. syst. enumerates 28 species for S. America, and the W. Indies, (Rajania and Dioscorea); 5 for Japan, (Rajania and Dioscorea); 4 for New Holland, (Dioscorea); 2 for N. America, (Dioscorea); and 2 for Europe and Middle Asia. In S. Africa have been discovered 3 species of Testudinaria, (*Harvey*), and in the E. Indies about 30 of *Dioscorea*, but of these several will undoubtedly be united on a rigid examination of authentic specimens.

The Yams, so important an article of food in all tropical countries, contain, before they are dressed, more or less acridity, which, however, generally evaporates by heat. This is particularly the case, observes Royle, with those species, that have compound leaves.

Testudinaria, Salisb. (*Lindl.; B. Reg.* 11, *t.* 921;—*Endl. gen. pl. p.* 158, under Dioscorea.—Tamus, *L.; Spreng. syst.* 3, *p.* 894, *No.* 3187.)

1. *Elephantopus*, Burch. (*Trav.* 2, *p.* 147;—♂ *B. Reg. l. c.*—Tamus Elephantopus, *L'Herit.; Spreng. syst.* 3, *p.* 905;—♀ *B. M.* 33, *t.* 1347.—Dioscorea Elephantopus, *Spreng. c. p. p.* 143.) ♃. C. G. H.

Has been cultivated for several years in the garden here, without fl.—The fleshy mass of the tubers are made use of as food by the Hottentots in times of scarcity, and are hence called Hottentot's bread. (*Royle.*)

DIOSCOREA, Plum. (*Spreng. syst.* 2, *p.* 15, *No.* 1380;—*Endl. gen. pl.* 1, *p.* 158.) *Yam.*

1. *globosa*, Roxb. (*fl. ind.* 3, *p.* 797;—*J. Grah. Cat. B. pl. p.* 218.) চুপড়ি আলু *Choopri-aloo.* ♃. ⌒ Bengal, (Serampore), cultivated. Fl. small, white, R. S.—Most esteemed of all the yams among the Natives, as well as Europeans.
2. *alata*, L. (*Spreng. syst.* 2, *p.* 152;—*Roxb. fl. ind.* 3, *p.* 797;—*J. Grah. Cat. B. pl. p.* 218, excl. syn. Rumph.—*Rheed.* 7, *t.* 38.) খম আলু *Khum-aloo.* ♃. ⌒ Wild in both Concans. Cultivated on the coast of Coromandel and in Bengal. Fl. small, green, R. S.—Of yams it holds in Bengal the second place.
3. *purpurea*, Roxb. (*fl. ind.* 3, *p.* 799.) ♃. ⌒ Only found in a cultivated state, under the name of রক্ত গরাণিয়া আলু *Rukto-guraniya-aloo.* Fl. small, whitish, R. S. Holds the third rank among the yams.
4. *rubella*, Roxb. (*fl. ind.* 3, *p.* 798;—*Rumph.* 5, *t.* 121.) গরাণিয়া আলু *Guraniya-aloo.* ♃. ⌒ Only found in a cultivated state. Fl. small, whitish, very fragrant, R. S. In the estimation of the Natives this species holds the fourth place among the yams.
5. *atropurpurea*, Roxb. (*fl. ind.* 3, *p.* 800.) *Malacca yam.* ♃. ⌒ Malacca. Pegu. Malay Islands. Fl. small, greenish-white, R. S. Extensively cultivated in its native place.
6. *aculeata*, L. (*Spreng. syst.* 2, *p.* 152;—*Roxb. fl. ind.* 3, *p.* 800;—*J. Grah. Cat. B. pl. p.* 218, excl. most of the syn.—*Rumph.* 5, *t.* 126.) মৌ আলু *Mou-aloo.* ♃. ⌒ Bengal, (Serampore.) Goa, &c. Fl. small, whitish, R. S. Roots about 2 pounds or more in weight, not cultivated, but dug up in the woods during the cold season, and carried for sale to the bazars. (*Roxb.*)
7. *fasciculata*, Roxb. (*fl. ind.* 3, *p.* 801.) সুসনি আলু *Soosni-aloo.* ♃. ⌒ Bengal, (Serampore.) Fl. R. S. Cultivated to a considerable extent in the vicinity of Calcutta, not only for food, but to make starch of the roots. (*Roxb.*)
8. *pulchella*, Roxb. (*fl. ind.* 3, *p.* 801.) ♃. ⌒ Chittagong. Fl. at the close of the R. S.
9. *crispata*, Roxb. (*fl. ind.* 3, *p.* 802.) ♃. ⌒ Interior of Bengal. Fl. small, R. S.
10. *anguina*, Roxb. (*fl. ind.* 3, *p.* 803.) কুকুর আলু *Kookoor-aloo.* ♃. ⌒ Bengal, Calcutta, (Serampore.) Fl. small, green, R. S.; fr. April.—*Root* not esteemed, though eaten by the poor when hard pressed for food. (*Roxb.*)
11. *nummularia*, Lam. (*Spreng. syst.* 2, *p.* 152;—*Roxb. fl. ind.* 3, *p.* 803.) সোর আলু *Sora-aloo.* ♃. ⌒ Bengal. Calcutta, (Serampore.) Fl. R. S. The *root* appears to be unfit for food. (*Roxb.*)

12. ***glabra***, Roxb. (*fl. ind.* 3, *p.* 804.) ♃. ⌒ Lower Bengal. Peninsula of India, west of the Ganges. Silhet. Sukanaghur. Introduced into H. C. G. in 1812, but had not fl. in 1814.
13. ***heterophylla***, Roxb. (*fl. ind.* 3, *p.* 804.) ♃. ⌒ Penang. Moluccas. Introduced into H. C. G. in 1798, and a ♂ plant fl. for the first time in Oct. and Nov. 1809.
14. ***oppositifolia***, L. (*Spreng. syst.* 2, *p.* 154;—*Roxb. fl. ind.* 3, *p.* 804;—*J. Grah. Cat. B. pl. p.* 219.) ♃. ⌣ Coromandel. Mahableshwur. The Ghauts, about Kandalla. Has been introduced into H. C. G. ?
15. ***dæmona***, Roxb. (*fl. ind.* 3, *p.* 805.—Ubium silvestre, *Rumph.* 5, *t.* 127.) ♂. ⌣ Goruckpore forests. Moulccas. Fl. R. S.—*Root* very nauseous, even after it has been boiled. (*Roxb.*)
16. ***pentaphylla***, L. (*Spreng. syst.* 2, *p.* 151.—*Roxb. fl. ind.* 3, *p.* 806;—*J. Grah. Cat. B. pl. p.* 218, excl. syn. Rumph.—*Rheed* 7, *t.* 34, 35.) কাঁটা আলু *Kanta-aloo.* ♃. ⌒ Bengal, (Serampore.) Monghyr. Morung. Vendalore. Silhet. Kemaon. Not cultivated, though the root is large, white, and reckoned very wholesome and palatable, and eaten by the Natives. Fl. R. S.

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* *Tamus communis*, L.; E. B. 2, t. 91. ♃. England. S. Europe. Middle Asia.—*T. cretica*, L. ♃. Candia.—*Dioscorea triphylla*, L. ♃. ⌒ Moluccas. Both Concans.—*D. verticillata*, Lam. Java.—*D. bulbifera*, L., New Holland. Both Concans.—*D. sativa*, L. Moluccas. Coromandel.—*D. cirrhosa*, Lour. Cochin China.—*D. versicolor*, Buch. Assam. Monghir. Nepal. Prome. Tavoy.—*D. acutangula*, Buch. Gualpara.—*D. tomentosa*, Spreng. Travancore. Gingee.—*D. belophylla*, (D. sagittata, Royle;—not Poir.) N. India.—*D. trifoliata*, Humb. Caracas.—*D. trifida*, L. fil. Surinam.—*D. cayennensis*, Lam. Cayenne.—*D. lutea*, Meyer. Surinam.—*D. altissima*, Lam. Martinique.—*D. piperifolia*, Humb. S. America.—*D. lucida*, R. Br. Tropical N. Holland.—*D. punctata*, R. Br. Tropical N. Holland.—*D. transversa*, R. Br. Tropical N. Holland.—*Rajania quinquefolia*, L., W. Indies.—*R. cordata*, L., W. Indies.—*R. angustifolia*, Swz. St. Domingo.

ORDER CCXLIII.—LILIACEÆ, DC.—Endl. gen. pl. 1, p. 139.

THE LILY TRIBE.

Scattered widely over the world, but much more abundant in temperate climates than in the tropics. Aloes are mostly found in S. Africa. One species is a native of the W. Indies, and two or three more of Arabia and the East. Dracænas, the most gigantic of the order, attain their largest size in the Canaries. Dracæna Draco is described in the Annales des

Science, 14, p. 140, as being between 70-75 feet high, 46½ feet in circumference at the base, and it was known to have been a very ancient tree in the year 1436. The northern flora comprehends for the most part the genera Scilla, Hyacinthus, Allium and Ornithogalum. In New Holland Liliaceæ form a distinctly marked feature of vegetation. (*Lindl.*) In the E. Indies about 66 species seem to have been discovered, viz. 1 of *Tulipa;* 4 of *Gagea;* 2 of *Lloydia;* 4 of *Fritillaria;* 4 of *Lilium;* 1 of *Notholirion;* 1 of *Methonica;* 1 of *Polianthes;* 1 of *Funkia;* 3 of *Scilla;* 9 of *Allium;* 2 of *Asphodelus;* 1 of *Hemerocallis;* 2 of *Anthericum;* 3 of *Chlorophytum;* 2 of *Chloropsis;* 4 of *Dianella;* 2 of *Rhuacophila;* 6 of *Asparagus;* and 13 of *Dracæna.*

A. Tulipeæ.

(Tulipaceæ, *Endl. gen. pl.* 1, *p.* 139.)

Tulipa, Tournef. (*Spreng. syst.* 2, *p.* 6, *No.* 1209;—*Endl. o. c. p.* 140.) *Tulip.*

1. *Gesneriana*, L. (*Spreng. syst.* 2, *p.* 63;—*Scult. syst.* 7, *p.* 376;—*B. M.* 28, *t.* 1135;—*B. Reg.* 5, *t.* 380.—*Roxb. H. B. p.* 24.) *Common Tulip.* ♃. Cappadocia, whence, according to Gesner, it was introduced into Europe. Introduced into H. C. G. in 1810, but had not fl. in 1814.
2. *stellata*, Hook. (*B. M.* 54, *t.* 2762;—*Schult. syst.* 8, *p.* 1684.—T. Clusiana, *Wall. MSS.* not Red.) ♃. Kemaon. Fl. large, yellowish-white, H. S.

Fritillaria, L. (*Spreng. syst.* 2, *p.* 6, *No.* 1210;—*Endl. gen. pl.* 1, *p.* 140.) *Fritillary.*

1. *Meleagris*, L. (*Spreng. syst.* 2, *p.* 63;—*Schult. syst.* 7, *p.* 395;—*E. B.* 9, *t.* 622.) ♃. Europe. Caucasus. N. Africa. Introduced here in 1820. Fl. ?

Notholirion, Wall. MSS.

1. *roseum*, Wall. MSS. (Fritillaria Thomsoniana, *Royle, ill. t.* 92, *f.* 1. ?) ♃. Gossain Than. In H. C. G. Fl. ?

Lilium, L. (*Spreng. syst.* 2, *p.* 6, *No.* 1208;—*Endl. gen. pl.* 1, *p.* 141.) *Lily.*

1. *candidum*, L. (*Spreng. syst.* 2, *p.* 61;—*Schult. syst.* 7, *p.* 416;—*B. M.* 8, *t.* 278;—*Roxb. H. B. p.* 24.) ♃. Levant. Sardinia. Introduced into H. C. G. in 1799, but had not fl. in 1814.
2. *nepalense*, D. Don. (*pr. fl. nep. p.* 52;—*Spreng. syst.* 2, *p.* 62;—*Wall. pl. as. rar.* 3, *t.* 291.) ♃ Nepal. Has been introduced into H. C. G. Fl. ?
3. *giganteum*, Wall. (*Tent. fl. nep. t.* 12, 13, *p.* 21, excl. syn.;—*Spreng. syst. c. p. p.* 135;—*Schult. syst.* 7, *p.* 419.) ♃. Nepal. Has been introduced into H. C. G.
4. *Wallichianum*, Schult. (*syst.* 8, *p.* 1689.—L. longiflorum, *Wall. tent. fl. nep. t.* 29;—*D. Don. pr. fl. nep. p.* 52; not Thunb.) ♃. Nepal. Kemaon. Has been introduced into H. C. G. Fl. ?

Besides these, 12 species of Lilium have been introduced into the Serampore garden without however, producing a flower.

METHONICA, Herm. (*Lugd. bot. cat. t.* 689;—*Endl. gen. pl.* 1, *p.* 141.—Gloriosa, *L.*;—*Spreng. syst.* 2, *p.* 6, *No.* 1213.) *Gloriosa.*

1. *superba*, Lam. (*Enc.* 4, *p.* 133, *excl.* β.; *ill. t.* 247, *f.* 1;—*Red. lil. t.* 26.—Gloriosa superba, *L.*;—*Gärtn.* 1, *p.* 69, *t.* 18, *f.* 1;—*Spreng. syst.* 2, *p.* 65;—*Schult. syst.* 7, *p.* 365;—*Roxb. fl. ind.* 2, *p.* 143;—*B. Reg.* 1, *t.* 77;—*B. Repos. t.* 129;—*J. Grah. Cat. B pl. p.* 221.—*Rheed.* 7, *t.* 57.) অলাটচান্দল *Ulatchandul.* ♃. Ceylon. Coromandel. Guzerat. Concans. Mahableshwur. Tavoy. Bengal, (Serampore.) Morung. Fl. large, from the base to the middle first yellow, then blood-coloured, from thence to the apex blood-coloured, R. S.; fr. C. S. The *root* is said to be a violent poison. (*Roxb.*)

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* *Tulipa suaveolens*, Roth.; B. M. 22, t. 839. ♃. S. Europe.—*T. præcox*, Ten. ♃. Italy.—*T. Clusiana*, Red; B. M. 34, t. 1390. ♃. Europe.—*T. sylvestris*, L.; E. B. 1, t. 63. ♃. Europe.—*Gagea pygmæa*, Schult. ♃. Madrid.—*Calochortus pallidus*, Schult. fil. ♃. Mexico.—*C. fuscus*, Schult. fil. ♃. Mexico.—*Cyclotbothra lutea*, Lindl.; B. Reg. 20, t. 1663. ♃. Mexico.—*Methonica virescens*, Endl. (Gloriosa virescens, Lindl.; B. M. 52, t. 2539.) ♃. Guinea.

B. AGAPANTHËÆ,

(*Endl. gen. pl.* 1, *p.* 141.)

FUNKIA, Spreng. (*syst.* 2, *p.* 5, *No.* 1190;—*Endl. l. c.*)

1. *coerulea*, (T. ovata, *Spreng. syst.* 2, *p.* 40;—*Schult. syst.* 7, *p.* 421.—Hemerocallis coerulea, *Andr. B. Repos.* 1, *t.* 6;—*Vent. Malm. t.* 18;—*Red. lil. t.* 106;—*Willd. enum. p.* 389, excl. syn. Lilii cordifolii. *Thunb.*;—*B. M.* 23, *t.* 894;—*Roxb. H. B. p.* 25.—H. coerulea β. flore violaceo, *B. M.* 35, *t.* 1433, annot.—Bryocles ventricosa, *Salisb. in Trans. hort. soc.* 1, *p.* 335.—H. japonica, β. *Willd. sp. p.* 198.) ♃. Japan. China. Fl. large, violet-blue, R. S. but very rare.
2. *cordata*, J. Grah. (*Cat. B. pl. p.* 217.—F. subcordata, *Spreng. syst.* 2, *p.* 40;—*Schult. syst.* 7, *p.* 421.—Hemerocallis cordata, *Thunb. jap. p.* 143;—*Cav.*;—*Roxb. fl. ind.* 2, *p.* 168.—H. japonica, *Thunb. act. soc. Linn.* 2, *p.* 335;—*Red. lil. t.* 3.—*B. M.* 35, *t.* 1433.—H. alba. *B. Repos. t.* 194.—H. plantaginea, *Lam.*—Aletris japonica, *Houtt. pfl. syst.* 11, *p.* 486, *t.* 84, *f.* 2.) ♃. Japan. China. Fl. very large, snow-white, sweet-scented, R. S.; fr. 0.

AGAPANTHUS, L'Herit. (*Spreng. syst.* 2, *p.* 5, *No.* 1184;—*Endl. gen. pl.* 1, *p.* 141.)

1. *umbellatus*, L'Herit. (*Sert. angl.* 18;—*Spreng. syst.* 2, *p.* 29;—*Schult. syst.* 8, *p.* 997;—*B. M.* 14, *t.* 500.—Crinum africanum, *L.*—Mauhlia linearis, *Thunb.*) ♃. C. G. H. Has been introduced into H. C. G. Fl.?
2. *præcox*, Willd. (*Schult. syst.* 8, *p.* 998.—A. umbellatus, β. præcox, *Spreng. syst.* 2, *p.* 29.) ♃. C. G. H. Introduced into H. C. G. Fl.?

Polianthes, L. (*Spreng. syst.* 2, *p.* 7, *No.* 1225;—*Endl. gen. pl.* 1, *p.* 142.) *Tuberose.*

1. *tuberosa*, L. (*Spreng. syst.* 2, *p.* 75;—*Schult. syst.* 7, *p.* 625;—*Ruiz. and Pav. fl. per.* 3, *p.* 66.—*Lour. fl. cochinch.* 1, *p.* 244;—*B. Reg.* 1, *t.* 63;—*B. M.* 43, *t.* 1817;—*Roxb. fl. ind.* 2, *p.* 166;—*J. Grah. Cat. B. pl. p.* 217.—Amica nocturna, *Rumph.* 5, *t.* 98.) রজনী গন্ধা *Rujunee-gundha.* ♃ No doubt a native of Mexico or S. America. Gardens in India, Ceylon and Java. Fl. large, white, fragrant, R. S.; fr. 0.
β. *plena.* Fl. double, fragrant, R. S.

This plant emits its scent most strongly after sunset, and has been observed in a sultry evening, after thunder, when the atmosphere was highly charged with electric fluid, to dart small sparks, or scintillations of lucid flame, in great abundance, from such of its flowers as were fading. (*Edinb. phil. journ.* 3, *p.* 415.)

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* *Funkia albo-marginata*, Hook.; B. M. 65, t. 3657. ♃. Japan.—*F. Sieboldiana*, Hook.; B. M. 65, t. 3663. (F. Sieboldii, Lindl; B. Reg. 1839, t. 50.—Hemerocallis Sieboldiana Lodd.; B. Cab. t. 1869.) ♃. Japan.—*Milla biflora*, Cav.; B. Reg. 18, t. 1555. ♃. Mexico.—*Bessera elegans*, Schult. (Pharium fistulosum, Herb.; B. Reg. 18, t. 1546.) ♃. Mexico.—*Polianthes gracilis*, Lk. ♃. Brazil.—*P. maculata*, Mart. ♃. Mexico.

C. Aloëæ.

(Aloinëæ, *Endl. gen. pl.* 1, *p.* 143.)

Sanseviera, Thunb. (*Spreng. syst.* 2, *p.* 8, *No.* 1254;—*Endl. l. c.*)

1. *guineënsis*, Willd. (*Spreng. syst.* 2, *p.* 93;—*Schult. syst.* 7, *p.* 355;—*B. M.* 29, *t.* 1180, excl. syn. Cavan.—Aloe guineënsis, *Jacq.*—Aletris guineënsis, *Jacq. vind.* 1, *p.* 36, *t.* 84.) ♃. Guinea. C. G. H. Fl. large, greenish-white, during the evening and night very fragrant, R. S., but very rare; fr. 0.
2. *Roxburghiana*, Schult. (*syst.* 7, *p.* 357;—*Roxb. Corom.* 2, *t.* 184; *fl. ind.* 2, *p.* 161, excl. syn. L. and Willd.;—*J. Grah. Cat. B. pl. p.* 218, excl. syn. Rheed. and Ker.) মুর্বা *Moarba. Bowstring Hemp.* ♃. Peninsula of India. Bengal, (Serampore,) &c. Fl. middle-sized, greenish-white, somewhat fragrant, and fr. R. S. This plant yields fibres of a fine and very strong quality, fitted for bowstrings, fishing lines, as well as for cordage, which, indeed, is made from it on the Coromandel coast. Roxburgh is of opinion, that the fine fibres, called China grass, are made from this plant, which he strongly recommends as a profitable cultivation in sandy soils of S. India. (*Royle.*)
3. *carnea*, Andr. (*B. Repos. t.* 361;—*Spreng. syst.* 2, *p.* 94;—*Schult. syst.* 7, *p.* 360, *and* 8, *p.* 1678;—*Red. lil. t.* 323.—S. sarmentosa, *Jacq. fragm. p.* 68, *t.* 102, *p.* 83, *t.* 134, *f.* 4.—S. sessiliflora, *Ker.; B. M.* 19, *t.* 739 and 35, *t.* 1431, *annot.*;—*Dum. Courset. herb. gen. de. l'amat. t.* 124.—Sanseviella, *Reichb. consp. regn. veg. p.* 44.) ♃. China.

Fl. smallish, dull rose-coloured, fragrant. Has not fl. here, though cultivated for many years.

KNIPHOFIA, Mönch. (*Endl. gen. pl.* 1, *p.* 143.—Tritoma, *Ker.*;—*Spreng. syst.* 2, *p.* 6, *No.* 1220.)

1. *Uvaria*, Endl. (K. aloïdes, *Mönch. meth. p.* 631.—Tritoma Uvaria, *Ker.*; *B. M.* 20, *t.* 758;—*Spreng. syst.* 2, *p.* 74;—*Schult. syst.* 7, *p.* 629.—Aloë Uvaria, *L. sp. p.* 460.—Aletris Uvaria, *L. Mant.*—Veltheimia Uvaria, *Willd.*;—*Jacq. fragm.* 7, *t.* 4, *f.* 9.) 4. C. G. H. Fl. largish, while closed red, when expanded yellow, fetid. Introduced in 1822. Fl. ?
2. *media*, Endl. (Tritoma media, *Ker.*; *B. M.* 20, *t.* 744;—*Spreng. l. c.*;—*Schult. syst.* 7, *p.* 630.—Aletris sarmentosa, *B. Repos. t.* 54.—Veltheimia repens, *B. Repos. recens.* 18, 63.—V. sarmentosa, *Willd.*—V. media, *Donn. hort. cant.*) 4. C. G. H. Fl. largish, pale-yellow, verging on orange, with violet bractes. Introduced in 1822. Fl. ?
3. *pumila*, Endl. (Tritoma pumila, *Ker.*; *B. M.* 20, *t.* 764;—*Spreng. l. c.*;—*Schult. l. c.*—Aletris pumila, *Ait.*—Veltheimia pumila, *Willd.*—V. abyssinica, *Red. lil. t.* 184.) 4. C. G. H. Abyssinia. Fl. smallish, miniated yellow, with bluish bractes. Introduced in 1822. Fl. ?

ALOË, Tournef. (*Spreng. syst.* 2, *p.* 6, *No.* 1218;—*Endl. gen. pl.* 1, *p.* 143.)

a. APICRA, *Schult. syst.* 7, *p.* 631.

1. *retusa*, L. (*Spreng. syst.* 2, *p.* 68, excl. syn;—*Schult. l. c.*;—*B. M.* 13, *t.* 455.) 4. C. G. H. Fl. smallish, white, C. S.; fr. 0.
2. *albicans*, Haw. (*Spreng. l. c.*;—*Schult. syst.* 7, *p.* 636;—*B. M.* 35, *t.* 1452.) 4. C. G. H. Fl. smallish, greenish-white, rose-coloured, C. S., but rare; fr. 0.
3. *cymbifolia*, Schrad. (*N. Journ.* 2, *B.* 1, *S. p.* 17, *t.* 2;—*Schult. syst.* 7, *p.* 637.—A. cymbiformis, *Haw.*;—*Spreng. l. c.*) 4. C. G. H. Fl. middle-sized, greenish-white, with a purplish base, C. S., but rare; fr. 0.
4. *reticulata*, Haw. (*Spreng. l. c.*;—*Schult. o. c. p.* 639.—A. arachnoïdes γ. reticulata, *B. M.* 32, *t.* 1314; 33, *t.* 1361, γ. *annot.*—A. Pumilio, *Jacq. schönbr. t.* 421.) 4. C. G. H. Fl. middle-sized, white, slightly tinged with rose, C. S.; fr. 0.
5. *atrovirens*, DC. (*pl. gr. t.* 51;—*Spreng. o. c. p.* 69;—*Schult. o. c. p.* 640.—A. arachnoïdes, *B. M.* 32, under *t.* 1314. β.—A. arachnoïdes. β. pumila, *B. M.* 33, *t.* 1361.) 4. C. G. H. Fl. middle-sized, greenish-white, streaked with rose, C. S.; fr. 0.
6. *translucens*, Haw. (*Spreng. o. c. p.* 68, excl. syn.;—*Schult. o. c. p.* 641.—A. arachnoïdes δ. translucens, *B. M.* 33, under *t.* 1361;—*B. M.* 33, *t.* 1417, excl. syn. Jacq.) 4. C. G. H. Fl. smallish, greenish-white, slightly tinged with rose, C. S.; fr. 0.
7. *arachnoïdes*, Mill. (*Spreng. l. c.* excl. syn.—*Schult. o. c. p.* 642.—*B. M.* 20, *t.* 756;—*DC. pl. gr. t.* 50.—A. arachnoïdes *a.* communis, *B.*

M. 32 and 33, under *t.* 1314, 1361 and 1417.) 4. C. G. H. Fl. middle-sized, greenish-lilac, C, S., but rare; fr. 0.

8. *mirabilis*, Haw. (*Spreng. o. c. p.* 59;—*Schult. o. c. p.* 643;—*B. M.* 30, *t.* 1354.) 4. C. G. H. Fl. middle-sized, greenish-white, streaked with red, C. S. but rare; fr. 0.

9. *recurva*, Haw. (*Spreng. l. c.*;—*Schult. o. c. p.* 644;—*B. M.* 33, *t.* 1353, excl. syn. A. tricolor *a.* venosa.) 4. C. G. H. Fl. middle-sized, greenish-white, streaked with purple, C. S. but rare; fr. 0.

10. *attenuata*, Haw. (*Spreng. l. c.*;—*Schult. o. c. p.* 645.—A. Radula, *B. M.* 33, *t.* 1345, not Jacq.) 4. C. G. H. Fl. middle-sized, greenish-white, streaked with red, in the bud greenish-rose-coloured, C. S.; fr. 0.

11. *margaritifera*, L. (*Spreng. l. c.* excl. syn.;—*Schult. o. c. p.* 648.—A. margaritifera *a.* major, *B. M.* 33, under *t.* 1360;—*DC. pl. gr. t.* 57, *A.*) 4. C. G. H. Fl. middle-sized, green, C. S.; fr. 0.

12. *minor*, Schult. (*l. c.*—A. margaritifera, var. media, *B. M.* 21, *t.* 815.) 4. C. G. H. Fl. middle-sized, greenish-white, tipped with pale rose, C. S. but rare; fr. 0.

13. *brevis*, Schult. (*o. c. p.* 649.—A. margaritifera γ. minima, *B. M.* 33, *t.* 1360, not of others.) 4. C. G. H. Fl. middle-sized, green, white-edged, C. S.; fr. 0.

14. *viscosa*, L. (*Spreng. o. c. p.* 70, excl. syn.;—*Schult. o. c. p.* 652;—*DC. pl. gr. t.* 16;—*B. M.* 21, *t.* 814.) 4. C. G. H. Fl. middle-sized, purple-streaked, greenish-white, C. S. but rare; fr. 0.

15. *tortuosa*, Haw. (*Spreng. l. c.* excl. syn.;—*Schult. o. c. p.* 655.—A. rigida, *B. M.* 33, *t.* 1337, not DC. and excl. A. expansa, *Haw.*) 4. C. G. H. Fl. middle-sized, greenish-white, purple-tipped, C. S. but very rare; fr. 0.

16. *imbricata*, Haw. (*Spreng. l. c.*;—*Schult. o. c. p.* 657.—A. spiralis, *DC. pl. gr. t.* 56;—*Jacq. fragm. p.* 72, *t.* 110;—*B. M.* 35, *t.* 1455.) 4. C. G. H. Fl. small, pale-greenish, yellowish-tipped. Has not fl. yet.

17. *pentagona*, Jacq. (*Fragm. p.* 72, *t.* 111;—*Schult. o. c. p.* 659;—*B. M.* 33, *t.* 1338.) 4. C. G. H. Fl. middle-sized, green, the segments greenish-yellow, each with a green spot at the base. Has not fl. here.

β. Gasteria, *Schult. syst.* 7, *p.* 660.

18. *pulchra*, Jacq. (*Hort. schönbr.* 4, *p.* 10, *t.* 419; *fragm. p.* 73, *t.* 112, *f.* 2, 3;—*Spreng. syst.* 2, *p.* 70. excl. syn.;—*Schult. o. c. p.* 660.—A. maculata, *B. M.* 20, *t.* 765;—*DC. pl. gr. t.* 91.) 4. C. G. H. Fl. middle-sized, with the tube rose-coloured, and the limb pale with green streaks, C. S.; fr. 0.

19. *obliqua*, Haw. (*Spreng. o. c. p.* 70, excl. syn.;—*Schult. o. c. p.* 661.—A. Lingua, *a. B. M.* 25, *t.* 979, excl. syn. Knorr. and Commel.) 4. C. G. H. Fl. middle-sized, at base rose-coloured, with the tube green, and the rest nearly white, C. S.; fr. 0.

20. *nigricans*, Haw. (*Spreng. o. c. p.* 71;—*Schult. o. c. p.* 663.—A. Lingua. β. *B. M.* 22, *t.* 838; 32, *t.* 1322, ε.) 4. C. G. H. Fl. largish, at base reddish, otherwise green, C. S.; fr. 0.

21. *angulata*, Willd. (*Spreng. o. c. p.* 70, excl. syn.; *Schult. o. c. p.* 667. —A. Lingua, *B. M.* 32, *t.* 1322. β.) 4. C. G. H. Fl. largish, at base reddish, otherwise green, C. S.; fr. 0.

22. *sulcata*, Salm. Dyck. (*Schult. o. c. p.* 668.—A. linguiformis, *DC. pl. gr. B. t.* 68, the first.—A. Lingua, *B. M.* 32, *t.* 1322, δ.) 4. C. G. H. Fl. largish, reddish, at the middle white, at the apex bright-green, C. S.; fr. 0.

23. *verrucosa*, Ait. (*Spreng. o. c. p.* 71;—*Schult. o. c. p.* 672;—*B. M. t.* 837;—*Roxb. H. B. p.* 25.) 4. C. G. H. Fl. largish, at base reddish, otherwise green, C. S.; fr. 0.

24. *intermedia*, Haw, (*Spreng. l. c.*;—*Schult. o. c. p.* 673.—A. Lingua, α. *B. M.* 32, *t.* 1322.) 4. C. G. H. Fl. largish, whitish-blood-red, greenish-tipped, C. S.; fr. 0.

25. *carinata*, Mill. (*Spreng. l. c.*;—*Schult. o. c. p.* 675.—A. carinata, α. *B. M.* 33, *t.* 1331, excl. of the fig. on the right side.) 4. C. G. H. Fl. largish, at base scarlet, above it greenish, streaked with sulphur, C. S.; fr. 0.

26. *nitida*, Salm. Dyck. (*Spreng. l. c.*;—*Schult. o. c. p.* 677;—*B. M.* 49, *t.* 2304.) 4. C. G. H. Fl. middle-sized, at base miniated, above it, yellowish-green, C. S.; fr. 0.

27. *acinacifolia*, Jacq. (*Ecl. p.* 49, *t.* 31;—*Schult. o. c. p.* 679;—*B. M.* 50, *t.* 2369.) 4. C. G. H. Fl. 1½ inch, with a rose-coloured tube, and a greenish limb, C. S.; fr. 0.

γ. Aloe, *Schult. syst.* 7, *p.* 682.

28. *acuminata*, Haw. (*Spreng. o. c. p.* 71;—*Schult. o. c. p.* 685.—A. humilis, *B. M.* 20, *t.* 757, not of others.) 4. C. G. H. Fl. 2 inches, before they expand scarlet, afterwards yellow, at the apex orange with green streaks, C. S. but very rare; fr. 0.

29. *virens*, Haw. (*Spreng. o. c. p.* 72;—*Schult. o. c. p.* 686;—*B. M.* 33, *t.* 1355.) 4. C. G. H. Fl. 1½-2 inches, yellowish-scarlet, towards the apex greenish, C. S.; fr. 0.

30. *prolifera*, Haw. (*Spreng. l. c.*;—*Schult. l. c.*—A. brevifolia, *B. Reg.* 12, *t.* 996.) ♄ C. G. H. Fl. 1¼ inch, yellowish-red, at apex greenish. Has not fl. here.

31. *depressa*, Haw. (*Spreng. o. c.*;—*Schult. o. c. p.* 688;—*B. M.* 33, *t.* 1332, excl. syn. Mill.) ♄ C. G. H. Fl. 3 inches, deep scarlet, yellow-streaked, towards the apex yellowish and green-streaked, C. S. but rare; fr. 0.

32. *glauca*, Mill. (*Spreng. o. c.*;—*Schult. o. c. p.* 690.) ♄ C. G. H.

β. *minor*, Haw. (A. rhodacantha, *B. M.* 31, *t.* 1278;—DC.?) ♄ C. G. H. Fl. 1¼ inch, reddish, towards apex greenish. Has not fl. here.

33. *barbadensis*, Mill. (*Schult. o. c. p*, 693.—A. vulgaris, *DC. pl. gr. p.* 27 ;—*Spreng.* 2, *p.* 72 ;—*Lam. enc.* 1, *p.* 86, excl. syn. Forsk.—*Rheed.* 11, *t.* 3.) ♄ Common in gardens in India. Fl. large, yellow, with the three inner segments at the apex somewhat orange, C. S. ; fr. 0. Yields the Barbadoes aloes.
34. *indica*, Royle, (*ill. p.* 390.—A. perfoliata, *Roxb. fl. ind.* 2, *p.* 167, excl. syn. Rheed. and Willd. ;—*J. Grah. Cat. B. pl. p.* 218, excl. syn. As. res.) ঘৃত কুমারী *Ghrito-koomaree.* ♄ Common in dry situations in the North-west Provinces of India. Cultivated in gardens. Fl. large, red, R. S. ; fr. 0.
35. *variegata*, L. (*Spreng.* 2, *p.* 72 ;—*Schult. o. c. p.* 696 ;—*DC. pl. gr. t.* 21, excl. syn. Till. ;—*B. M.* 15, *t.* 513 ;—*Roxb. H. B. p.* 25.) ♃. C. G. H. Fl. 15-16 lines, externally reddish, internally white. Introduced into H. C. G. in 1806, but had not fl. up to 1814.
36. *serrulata*, Haw. (*Spreng. l. c. ;—Schult. o. c. p.* 697 ;—*B. M.* 34, *t.* 1415.) ♄ C. G. H. Fl. 1½ inch, pale miniated flesh-coloured, towards apex green-streaked. Has not fl. here.
37. *micracantha*, Haw. (*Spreng. o. c. p.* 71 ;—*Schult. l. c. ;—B. M.* 48, *t.* 2272.) ♄ C. G. H. Fl. 1⅓ inch, rose-coloured, towards apex greenish. Has not fl. here.
38. *saponaria*, Haw. (*Schult. l. c. t.* 699.—A. saponaria, *a. B. M.* 36, *t.* 1460.) ♄ C. G. H. Fl. 1½ inch, bright scarlet, with the segments at the apex sulphur-margined, C. S., but rare ; fr. 0.
39. *latifolia*, Haw. (*Spreng. o. c. p.* 73 ;—*Schult. o. c. p.* 700, excl. B. M. 36, t. 1460.—A. saponaria β. latifolia, *B. M.* 33, *t.* 1346.) ♄ C. G. H. Fl. 2 inches, brigh scarlet, at apex yellowish, C. S. ; fr. 0.
40. *purpurascens*, Haw. (*Schult. syst.* 8, *p.* 1715 ; *ibid.* 7, *p.* 692, excl. A. vera. Lam., rubescens, DC. and officinalis and vacillans, *Forsk.* A. soccotrina, β. major, *B. M.* 36, *t.* 1474.) ♄ C. G. H. Fl. 1¼ inch, before expansion deep scarlet, green tipped, afterwards scarletish, white streaked, at apex green. Has not fl. here.
41. *obscura*, Mill. (*Spreng. o. c. p.* 70 ;—*Schult. o. c. p.* 700.—A. picta, *B. M.* 32, *t.* 1323 ;—*DC. pl. gr. t.* 97.) ♄ C. G. H. Fl. 2 inches, deep scarlet, inside and towards apex greenish, C. S. ; fr. 0.
42. *soccotrina*, Lam. (*Spreng. o. c. p.* 73 ;—*Schult. o. c. p.* 701 ;—*DC. pl. gr. t.* 85, excl. syn. Munting ;—*J. Grah. Cat. B. pl. p.* 218, excl. syn. —A. perfoliata, var. succotrina, *B. M.* 14, *t.* 472.) ♄ Soccotora. Fl. 1¼ inch, at base scarlet, in the middle pale, at apex greenish, C. S. ; fr. 0.
43. *plicatilis*, Mill. (*Spreng. l. c. ;—Schult. o. c. p.* 707 ;—*B. M.* 13, *t.* 457.) ♄ Africa. Fl. 1 inch, red, towards the apex pale yellowish-greenish. Has not fl. here.
44. *arborescens*, Mill. (*Spreng. l. c. ;—Schult. o. c. p.* 708 ;—*DC. pl. gr. t.* 38 ;—*B. Repos. t.* 468.) ♄ C. G. H. Fl. 1½ inch, scarlet, towards apex. greenish, inner segments yellow, with a greenstreak. Has not fl. here.

45. *africana*, Mill. (*Spreng. l. c.*—*Schult. o. c. p.* 709.)
β. *angustior*, (*B. M.* 51, *t.* 2517.) ♄ C. G. H. Fl. $2\frac{1}{4}$ inches, yellow, green-tipped. Has not fl. here.

46. *ferox*, Lam. (*Spreng. l. c.*;—*Schult. o. c. p.* 710;—*DC. pl. gr. t.* 32;—*B. M.* 45, *t.* 1975.) ♄ C. G. H. Petals 9 lines, the three outer ones reddish-white, at apex green; the inner ones white, with a longitudinal green line and a dark violet apex; the stamens long, exserted, below white, above yellow; the anthers orange, afterwards brown, C. S., but very rare; fr. 0.

47. *Commelyni*, Willd. (*Spreng. o. c. p.* 74;—*Schult. o. c. p.* 712.—A. mitræformis, *B. M.* 31, *t.* 1270, excl. most of the syn.) ♄ C. G. H. Fl. nearly $2\frac{1}{2}$ inches, scarlet, inside yellowish, C. S., but very rare; fr. 0.

48. *distans*, Haw. (*Schult. o. c. p.* 714.—A. mitræformis, β. brevifolia, *B. M.* 33, *t.* 1362.) ♄ C. G. H. Fl. 2 inches, scarlet, internally and towards the apex greenish. Has not fl. here.

49. *macra*, Haw. (*Spreng. o. c. p.* 73;—*Schult. o. c. p.* 703, and 8, *p.* 1715.—A. rufo-cincta, *Haw.*;—Lomatophyllum macrum, *Lk.*; *Spreng. l. c.*;—*Schult. l. c.*) ♄ Mascarenhas Islands, and not India, according to DC. Lately introduced.

(Of the genus *Aloë*, Dr. Carey's printed papers enumerate, in all, 104 species, which, from time to time were introduced into the Serampore garden; but as most of them are now dead, and we have found ourselves unable to extricate their specific names from the obscurity in which they are involved, we have thought it best to put down only such species, as have come within our own observation.)

LOMATOPHYLLUM, Willd. (*Spreng. syst.* 2, *p.* 6, *No.* 1219;—*Endl. gen. pl.* 1, *p.* 144.)

1. *borbonicum*, Willd. (*Spreng. syst.* 2, *p.* 74;—*Schult. syst.* 7, *p.* 361.—Aloë purpurea, *Lam.*—A. marginalis, *DC. pl. gr. t.* 31.—A. marginata, *Willd.*—Dracæna marginata, *Ait.* not Dalm.—D. dentata, *Pers.*—Phylloma aloïflorum, *Ker.*; *B. M.* 38, *t.* 1585.—P. borbonicum, *Haw. suppl. pl. succ. p.* 43.) ♄ Bourbon. Fl. 9 lines, yellow, outside brownish-red lined, inside and at apex greenish. Has been introduced into H. C. G. Fl. ?

YUCCA, L. (*Spreng. syst.* 2, *p.* 5, *No.* 1191;—*Endl. gen. pl.* 1, *p.* 144.)

1. *aloïfolia*, L. (*Spreng. syst.* 2, *p.* 41;—*Schult. syst.* 7, *p.* 716;—*DC. pl. gr. t.* 40;—*Red. lil. t.* 40, 402;—*B. M.* 41, *t.* 1700;—*J. Grah. Cat. B. pl. p.* 221.) ♄ Jamaica. Vera Cruz. Carolina. Florida. Fl. 2 inches, before they expand greenish-dark-purple, afterwards white, with a violet spot at the base, at last violet along the middle nerves, R. S.; fr. 0.

2. *Draconis*, L. (*Spreng. l. c.*;—*Schult. l. c.*;—*Gärtn. fr.* 2, *p.* 34, *t.* 85, *f.* 9.) ♄ S. Carolina. Introduced in 1820, but has not fl. yet.

3. *filamentosa*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 718;—*B. M.* 23, *t.*

900 ;—*Red. lil. t.* 227 ;—*Roxb. H. B. p.* 25.) ♄ Carolina. Virginia. Introduced into H. C. G. in 1799, but had not fl. up to 1814.

4. *glaucescens*, Haw. (*Schult. o. c. p.* 719.—Y. angustifolia, *Hortul*, not Pursh. nor Spreng.) ♄ N. America. Introduced here in 1820, but has not fl.

5. *gloriosa*, L. (*Spreng. l. c.*, excl. syn. ;—*Schult. o. c. p.* 720 ;—*Red. lil. t.* 326 ;—*B. M.* 31, *t.* 1260 ;—*Roxb. H. B. p.* 25 ;—*J. Grah. Cat. B. pl. p.* 221 ; not Andr.) ♄ Canada. Carolina. Virginia. Peru. Fl. $1\frac{1}{2}$ inch, before they expand greenish-white, afterwards mostly white, R. S. ; fr. 0.

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* *Sanseviera longiflora*, Sims. ; B. M. 53, t. 2634. ♃. Country unknown.—*S. zeylanica*, Willd. ; B. Reg. 2, t. 160, not Roxb. ♃. Ceylon.—*S. æthiopica*, Thunb. ♃. C. G. H.—*S. lanuginosa*, Willd ; Rheed. 11, t. 42. ♃. Sandy places on the Malabar Coast.—*S. fulvocincta*, Haw. ♃. Brazil.—*S. javanica*, Bl. ♃. Java.—*S. flexuosa*, Bl. ♃. Java.—*S. fruticosa*, Bl. ; Rumph. 4, t. 35. ♄ Moluccas. Java.—*Aloë Serra*, DC. ♄ C. G. H.—*A. abyssinica*, Lam. ♄ Abyssinia.—*A. frutescens*, Salm. Dyck. ♄ C. G. H.—*A. nobilis*, Haw. ♄ C. G. H. —*Yucca acaulis*, Humb. and Bonpl. ♄ Caracas. Cumana.—*Y. recurva*, Salisb. ♄ Georgia.—*Y. glauca*. Sims. ; B. M. 53, t. 2662. ♄ Carolina.

D. Asphodelëæ.

Endl. gen. pl. 1, *p.* 144.

a. Hyacinthinæ (Hyacintheæ, *Endl. l. c.*)

Muscari, Tournef. (*Spreng. syst.* 2, *p.* 6, *No.* 1216 ;—*Endl. l. c.*) *Grape-Hyacinth.*

1. *moschatum*, Tournef. (*Spreng. syst.* 2, *p.* 65 ;—*Schult. syst.* 7, *p.* 590 ; —*B. M.* 19, *t.* 734.—Hyacinthus Muscari, L.) ♃. Asia. Introduced into Europe before 1554. Fl. small, yellowish, fragrant, quickly fading. Introduced here in 1818. Fl. ?

2. *botryoïdes*, Mill. (*Spreng. o. c. p.* 66 ;—*Schult. o. c. p.* 591.—Hyacinthus botryoïdes, *L.*—*B. M.* 5, *t.* 157.) ♃. Middle and S. Europe. Fl. small, dark blue, strongly scented. Introduced here in 1818. Fl. ?

Bellevalia, Lapêyr. (*Endl. gen. pl.* 1, *p.* 144.)

1. *romana*, Reichb. (*fl. germ. exc. p.* 105.—B. operculata, *Lapéyr.*—Hyacinthus romanus, *L.*—*Spreng. syst.* 2, *p.* 65, excl. syn. ;—*Schult. syst.* 7, *p.* 587.—Scilla romana, *Ker. ; B. M.* 27, *t.* 939.) ♃. S. France. Pyrenees. Italy. Sicily. Barbary. Fl. small, lower ones yellowish-brown, at base greenish, above suffused with purple, upper ones blue. Introduced in 1815. Fl. ?

Hyacinthus, L. (*Spreng. syst.* 2, *p.* 6, *No.* 1215 ;—*Endl. gen. pl.* 1, *p.* 144.)

1. *orientalis*, L. (*Spreng. syst.* 2, *p.* 65 ;—*Schult. syst.* 7, *p.* 580 ;—*B. Reg.* 12, *t.* 995.) ♃. Levant, near Bagdad and Aleppo. Barbary. S. France. Fl. large, bright-blue, fragrant, C. S. 1840.

VELTHEIMIA, Gled. (*Spreng. syst.* 2, *p.* 7, *No.* 1222;—*Endl. gen. pl.* 1, *p.* 144.)

1. *viridifolia*, Jacq. (*hort. schönbr.* 1, *p.* 41, *t.* 78;—*Spreng. syst.* 2, *p.* 75;—*Schult. syst.* 7, *p.* 628;—*B. Cab. t.* 1245;—*J. Grah. Cat. B. pl. p.* 218.—V. capensis, *Red. lil. t.* 193.—V. undulata, *Mönch.*—Aletris capensis, *L. mant.* excl. syn. Buxb.;—*B. M.* 14, *t.* 501.) ♃. C. G. H. Fl. 1½-2 inches, reddish flesh-coloured, unpleasantly smelling, R. S.; fr. 0.

UROPETALUM, Ker. (*Spreng. syst.* 2, *p.* 7, *No.* 1230;—*Endl. gen. pl.* 1, *p.* 144;)

1. *viride*, Ker. (*Spreng. syst.* 2, *p.* 78;—*Schult. syst.* 7, *p.* 620.—Hyacinthus viridis, *L.*—*Jacq. ic. rar.* 1, *t.* 66;—*Red. lil.* 5, *t.* 203.) ♃. C. G. H. Fl. 10 lines, dark-green, inodorous. Introduced in March 1841. Has not fl. yet.

AGRAPHIS, Lk. (*Endl. gen. pl.* 1, *p.* 145.)

1. *campanulata*, Reichb. (*fl. germ. exc. p.* 106.—Scilla campanulata, *Ait.*;—*Spreng. syst.* 2, *p.* 66;—*Schult. syst.* 7, *p.* 575, and 8, *p.* 1708;—*Red. lil. t.* 435;—*B. M.* 4, *t.* 128.—S. hyacinthoïdes, *Jacq. ic. rar. t.* 65.) ♃. Spain. Portugal. Fl. 6½ lines, pale-bluish, outside more intensely coloured, C. S.; fr. 0.
2. *nutans*, Reichb. (*fl. germ. exc. p.* 105.—Scilla nutans, *Sm.*;—*E. B.* 6, *t.* 377;—*Spreng. syst.* 2, *p.* 66;—*Schult. syst.* 7, *p.* 577; and 8, *p.* 1708.—S. non scripta, *Red. t.* 224;—*B. M.* 36, *t.* 1461.) ♃. Europe, from England throughout E. and S. Europe. Fl. 6-10 lines, blue, sweet-scented, C. S.; fr. 0.

LACHENALIA, Jacq. (*Spreng. syst.* 2, *p.* 7, *No.* 1229;—*Endl. gen. pl.* 1, *p.* 145.)

1. *hyacinthoïdes*, Jacq. (*ic. rar.* 2, *t.* 382;—*Spreng. syst.* 2, *p.* 78;—*Schult. syst.* 7, *p.* 599.—Hyacinthus orchioïdes, *Jacq. hort. vind.* 2, *t.* 178.)
   β. *foliis maculatis*, (L. contaminata, *Ait.*;—*B. M.* 34, *t.* 1401, excl. syn. L. and Lachenalia orthopetala, Jacq.) ♃. C. G. H. Fl. small, white-reddish. Introduced in March 1841. Has not fl. yet.
2. *angustifolia*, Jacq. (*ic. rar.* 2, *t.* 381;—*Spreng. l. c.*;—*Schult. o. c. p.* 600;—*B. M.* 19, *t.* 735.) ♃. C. G. H. Fl. 4 lines in diameter, white, the segments on both sides marked with a green or brown spot. Introduced in March 1841. Has not fl. yet.
3. *orchioïdes*, Ait. (*Spreng. l. c.*;—*Schult. o. c. p.* 603.—L. orchioïdes, γ. *B. M.* 22, *t.* 854, excl. syn. Jacq.—Phormium hyacinthoïdes, *L. fil. suppl.*) ♃. C. G. H. Introduced in March 1814. Has not fl. yet.
4. *pallida*, Ait. (*Spreng. l. c.* excl. syn.;—*Schult. o. c. p.* 605;—*Red. lil. t.* 22;—*B. Reg.* 16, *t.* 1350.) ♃. C. G. H. Introduced in March 1841. Has not fl. yet.
5. *pustulata*, Jacq. (*ic. rar.* 2, *t.* 386;—*Spreng. o. c. p.* 77;—*Schult.*

o. c. p. 609;—*B. M.* 21, *t.* 817.) 4. C. G. H. Introduced in March, 1841. Has not fl. yet.

6. *violacea*, Jacq. (*ic. rar.* 2, *t.* 394;—*Spreng. l. c.*;—*Schult. o. c. p.* 610.) 4. C. G. H. Introduced in March, 1841. Has not fl. yet.

7. *tricolor*, Thunb. (*Spreng. o. c. p.* 76, excl. syn. L. luteola, *Jacq.*;—*Schult. o. c. p.* 612;—*B. M.* 3, *t.* 82.) 4. G. C. H. Introduced in March, 1841. Has not fl. yet.

8. *pendula*, Ait. (*Spreng l. c.*;—*Schult. o. c. p.* 614;—*B. M.* 16, *t.* 690;—*J. Grah. Cat. B. pl. p.* 221.) 4. C. G. H. Introduced in March, 1841. Has not fl. yet.

Drimia, Jacq. (*Spreng. syst.* 2, *p.* 7, *No.* 1223;—*Endl. gen. pl.* 1, *p.* 145.)

1. *lanceæfolia*, Ker. (*Spreng syst.* 2, *p.* 75;—*Schult. syst.* 7, *p.* 594.—Lachenalia lanceæfolia, *Jacq. ic. rar.* 2, *t.* 402;—*Red. lil. t.* 59;—*B. M.* 17, *t.* 643.) 4. C. G. H. Fl. smallish, greenish, within thick-set with liver-coloured confluent dots, June; fr. 0.

2. *acuminata*, Lodd. (*B. Cab. t.* 1041;—*Schult. syst.* 8, *p.* 1710.) 4. C. G. H. Introduced in March, 1841. Has not fl.

3. *media*, Jacq. (*ic. rar.* 2, *t.* 375;—*Spreng. syst.* 2, *p.* 75;—*Schult. syst.* 7, *p.* 596.—Hyacinthus medius, *Poir.*) 4. C. G. H. Introduced in 1820. Fl.?

4. *ciliaris*, Jacq. (*ic. rar.* 2, *t.* 377;—*Spreng. l. c.*;—*Schult. o. c. p.* 597;—*B. M.* 35, *t.* 1444.—Hyacinthus ciliaris, *Poir.*) 4. C. G. H. Fl. middle-sized, outside greenish, densely purplish-dotted, inside pale, June; fr. 0.

5. *elata*, Jacq. (*ic. rar.* 2, *t.* 373; *fragm. p.* 3, *t.* 2, *f.* 2;—*Spreng. l. c.*;—*Schult. l. c.*;—*Red. lil. t.* 430;—*B. M.* 21, *t.* 822.—Hyacinthus elatus, *Poir.*) 4. C. G. H. Introduced in 1820. Fl.?

6. *undulata*, Jacq. (*ic. rar. t.* 376;—*Spreng. l. c.*;—*Schult. o. c. p.* 598.) 4. C. G. H. Introduced in 1820. Fl.?

Daubenya, Lindl. (*B. Reg.* 21, *t.* 1813;—*Endl. gen. pl.* 1, *p.* 145.)

1. *coccinea*, Lindl. 4. C. G. H. Introduced in March, 1814. Has not fl. yet.

Eucomis, L'Herit. (*Spreng. syst*, 2, *p.* 7, *No.* 1226;—*Endl. gen. pl.* 1, *p.* 145.)

1. *punctata*, L'Herit. (*Sert. angl.* 18;—*Spreng. syst.* 2, *p.* 76;—*Schult. syst.* 7, *p.* 622;—*B. M.* 23, *t.* 913;—*Red. lil. t.* 208.—E. punctata, *a. B. M.* 37, under *t.* 1539;—*Roxb. H. B. p.* 24.—Asphodelus comosus, *Houtt. Linn. pfl. syst.* 2, *p.* 381, *t.* 83.—Ornithogalum punctatum, *Thunb. pr.* 62.—Basilæa punctata, *Lam. ill. t.* 289, *f.* 2.—Tritillaria punctata, *Gmel.*) 4. C. G. H. Fl. ½ inch, green, outside purplish, the inner segments whitish, R. S.; fr. 0. The whole plant has a somewhat unpleasant, heavy smell.

β. *striata*, (*B. M.* 37, *t.* 1539.—E. striata, *Donn. hort. cant.* 6, *p.* 86.) 4. C. G. H. Leaves purple-streaked on the back, R. S.; fr. 0.

2. *undulata*, Ait. (*Spreng. l. c.*;—*Schult. l. c.*;—*B. M.* 27, *t.* 1083.—E. regia, *L'Herit. sert. angl.* 17, not Ait. and excl. syn. Dill. and L.; —*Red. lil. t.* 175, excl. syn. Dill., L., Mill., and Ait.—Ornithogalum undulatum, *Thunb.*—Fritillaria longifolia, *Hill.*; *H. Kew.* 354, *t.* 15. —F. autumnalis, *Mill.*—Basilæa coronata, *Lam.*) 4. C. G. H. Fl. 6 lines, yellowish-green, R, S.; fr. 0.

Scilla, L. (*Spreng. syst.* 2, *p.* 6, *No.* 1217;—*Endl. gen. pl.* 1, *p.* 146.) *Squill.*

1. *peruviana*, L. (*Spreng. syst.* 2, *p.* 68;—*Schult. syst.* 7, *p.* 558;—*Red. lil. t.* 167;—*B. M.* 20, *t.* 749;—*Roxb. H. B. p.* 24.—Ornithogalum speciosum, *Rafin.*) 4. Algiers. Tunis. Sicily. Italy. Portugal, but not Peru. Fl. 4-5 lines, bluish-violet. Introduced into H. C. G. in 1804, but had not fl. in 1814.
2. *autumnalis*, L. (*Spreng. o. c. p.* 67;—*Schult. o. c. p.* 568;—*E. B.* 2, *t.* 78;—*Red. lil. t.* 317;—*B. M.* 23, *t.* 919.—Anthericum autumnale, *Scop.*—Ornithogalum autumnale, *Lam.*) 4 W. and S. Europe. N. Africa. S. Tauria. Fl. 3 lines, rose-coloured. Introduced in 1821. Fl.?
3. *bifolia*, L. (*Spreng. l. c.*, excl. syn.;—*Schult. o. c. p.* 569;—*E. B.* 1, *t.* 24;—*Jacq. austr. t.* 117;—*B. M.* 20, *t.* 746;—*B. Cab. t.* 283;—*Red. lil. t.* 254.—Stellaris bifolia, *Mönch.*—Anthericum bifolium, *Scop.*—Ornithogalum bifolium, *Neck.*) 4. Middle and S. Europe. Fl. 4-8 lines, blue. Introduced in 1821. Fl.?
4. *amæna*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 571;—*Jacq. austr. t.* 218;—*B. M.* 10, *t.* 341;—*Red. lil. t.* 298.) 4. S. and M. Europe. Fl. 10-12 lines in diameter, bright azure. Introduced in 1821. Fl.?
5. *corymbosa*, Ker. (*Spreng. o. c. p.* 66;—*Schult. o. c. p.* 574.—Hyacinthus corymbosus, *L.*;—*B. Repos. t.* 345.—Massonia corymbosa, *B. M.* 25, *t.* 991.) 4. C. G. H. Fl. 4-5 lines, purple, with a red keel. Introduced in March, 1841. Has not fl. yet.
6. *indica*, Roxb. (*fl. ind.* 2, *p.* 147;—*J. Grah. Cat. B. pl. p.* 220.) 4. Common on the sandy shores of both Concans. Introduced into H. C. G. in 1800, where it fl. and fr. March and April. Here it has not fl. for the last 12 years. The taste of the root is fully as nauseous and bitter as that of the true Squill, (Urginea maritima, *Steinh.*) and it may be possessed of the same qualities. (*Roxb.*)
7. *coromandeliana*, Roxb. (*fl. ind.* 2, *p.* 147.) 4. Sand-hills on the Coromandel Coast. Introduced in 1802, into H. C. G. where it fl. and fr. April and May. Here it has not fl. for the last 12 years.

Urginea, Steinhell. (*Endl. gen. pl.* 1, *p.* 146.)

1. *maritima*, Steinh. (*Ann. sc. nat.* 1834, 1, *p.* 321.—Scilla maritima, *L.*;—*Spreng. syst.* 2, *p.* 68;—*Schult. syst.* 7, *p.* 556;—*Red. lil. t.* 116.—Ornithogalum maritimum, *Tournef.*—O. Squilla, *a. B. M.* 23, *t.* 918.) 4. Shores of the Mediterranean. Fl. 6-8 lines in diameter, white, tinged with green. Has been cultivated for many years in the Serampore garden, without fl.

ORNITHOGALUM, L. (*Spreng. syst.* 2, *p.* 5, *No.* 1185;—*Endl. gen. pl.* 1, *p.* 146.)

1. *aureum*, Curt. (*B. M.* 6, *t.* 190;—*Spreng. syst.* 2, *p.* 33;—*Schult. syst.* 7, *p.* 508;—*B. Cab. t.* 1183.) 4. C. G. H. Introduced in 1824. Fl. ?
2. *thyrsoïdes*, Jacq. (*Spreng. l. c.*—*Schult. o. c. p.* 509.) 4. C. G. H.
   a. album, (*B. Reg.* 4, *t.* 316;—*Jacq. vind.* 3, *p.* 17, *t.* 28;—*B. M.* 29, *t.* 1164;—*Red. lil. t.* 333;—*Roxb. H. B. p.* 24;—*J. Grah. Cat. B. pl. p.* 220.—O. arabicum, *L.*, as to description, but excl. syn.)
   β. *flavescens*, (*B. Reg.* 4, *t.* 305;—*Jacq. ic. rar.* 2, *t.* 437;—*Roxb. H. B. p.* 24.) Both varieties introduced into H. C. G. in 1799, but had not fl. in 1814.
3. *arabicum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 511;—*B. M.* 19, *t.* 728.) 4. S. Europe. N. Africa. Introduced in 1825. Fl. ?
4. *revolutum*, Jacq. (*hort. schönbr.* 1, *p.* 46, *t.* 89;—*Spreng. o. c. p.* 31;—*Schult. o. c. p.* 513;—*B. M.* 18, *t.* 653;—*B. Reg.* 4, *t.* 315.) 4. C. G. H. Introduced in 1831. Has not. fl.
5. *lacteum*, Jacq. (*Ic. rar.* 2, *t.* 344;—*Spreng. o. c. p.* 32;—*Schult. l. c.*;—*B. M.* 28, *t.* 1134;—*Red. lil. t.* 418.) 4. Introduced in 1831. Has not fl.
6. *pyramidale*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 515;—*Jacq. ic. rar.* 2, *t.* 425;—*Red. lil. t.* 422;—*J. Grah. Cat. B. pl. p.* 220.) 4. S. Europe. Introduced in 1832. Has not fl.
7. *latifolium*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 514;—*Jacq. ic. rar.* 2, *t.* 424;—*B. M.* 22, *t.* 876.) 4. Arabia. Egypt. Introduced in 1832. Has not fl.
8. *pyrenaicum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 517;—*E. B.* 7, *t.* 499;—*Jacq. austr. t.* 103.) 4. Europe. Fl. 6 lines, whitish-green, R. S.; fr. 0.
9. *caudatum*, Ait. (*Spreng. l. c.*;—*Schult. o. c. p.* 520;—*Jacq. ic. rar.* 2, *t.* 423;—*B. M.* 21, *t.* 805;—*Roxb. H. B. p.* 24.) 4. C G. H. Fl. 4-5 lines, green, white-edged, sweet-scented, C. S.; fr. 0.
10. *longibracteatum*, Jacq. (*hort. vind. t.* 29;—*Spreng. l. c.*;—*Schult. o. c. p.* 521;—*J. Grah. Cat. B. pl. p.* 220.) 4. C. G. H. Introduced in 1830. Has not fl.
11. *barbatum*, Jacq. (*hort. schönbr.* 1, *p.* 47, *t.* 91;—*Spreng. o. c. p.* 31;—*Schult. o. c. p.* 524.) 4. C. G. H. Introduced in 1830. Has not fl.
12. *juncifolium*, Jacq. (*hort. schönbr.* 1, *p.* 46, *t.* 90;—*Spreng. o. c. p.* 32;—*Schult. l. c.*) 4. C. G. H. Introduced in 1830. Has not fl.
13. *umbellatum*, L.) *Spreng. o. c. p.* 30, *excl. syn.*;—*Schult. o. c. p.* 532;—*E. B.* 2, *t.* 130.—*Red. lil. t.* 143;—*Jacq. austr. t.* 343;—*Roxb H. B. p.* 24, excl. "India.") 4. Europe. N. Africa and America. Fl. 6-10 lines, on the back green, white-edged, inside white, R. S.; fr. 0.

ALBUCA, L. (*Spreng. syst.* 2, *p.* 4, *No.* 1182;—*Endl. gen. pl.* 1, *p.* 146.)

1. *altissima*, Dryand. (*Spreng. syst.* 2, *p.* 27;—*Schult. syst.* 7, *p.* 494.) 4. C. G. H. Introduced in 1830. Has not fl.

2. *major*, Dryand, (*Spreng. l. c.*;—*Schult. o. c. p.* 495;—*Red. lil. t.* 69;—*B. M.* 21, *t. t.* 804;—*B. Cab. t.* 1191;—*Roxb. H. B. p.* 24.) ♃. C. G. H. Fl. 2 inches in diameter, yellowish-green, C. S.; fr. 0.
3. *minor*, L. (*Spreng. l. c.*;—*Schult. l. c.*;—*Red. lil. t.* 21;—*B. M.* 19, *t.* 720;—*Roxb. H. B. p.* 24.) ♃. C. G. H. Fl. $1\frac{1}{2}$ inch in diameter, greenish-yellow, R. S.; fr. 0.
4. *flaccida*, Jacq. (*ic. rar. t.* 2, 444;—*Spreng. l. c.*;—*Schult. o. c. p.* 496.) ♃. C. G. H. Introduced in 1830. Has not fl.
5. *caudata*, Jacq. (*ic. rar.* 2. *t.* 442;—*Spreng. o. c. p.* 28;—*Schult. o. c. p.* 497.) ♃. C. G. H. Introduced in 1830. Has not fl.
6. *coarctata*, Dryand. (*Spreng. o. c. p.* 27;—*Schult. l. c.*) ♃. C. G. H. Introduced in 1830. Has not fl.
7. *fastgiata*, Dryand. (*Spreng. o. c. p.* 28;—*Schult. o. c. p.* 498;—*B. Repos. t.* 450;—*Red. lil, t.* 474;—*B. Reg.* 4, *t.* 277.) ♃. C. G. H. Introduced in 1830. Has not fl.
8. *setosa*, Jacq. (*ic. rar.* 2, *t.* 440;—*Spreng. l. c.*;—*Schult. l. c.*;—*B. M.* 36, *t.* 1481.) Introduced in 1830. Has not fl.
9. *aurea*, Jacq. (*ic. rar.* 2, *t.* 441;—*Spreng. o. c.*;—*Schult. l. c. p.* 499.) ♃. C. G. H. Introduced in 1832. Has not fl.
10. *vittata*, Ker. (*Spreng. o. c.*;—*Schult. o. c. p.* 500;—*B. M.* 33, *t.* 1329.) ♃. C. G. H. Introduced in 1832. Has not fl.
11. *fragrans*, Jacq. (*hort. schönbr.* 1, *p.* 44. *t.* 84;—*Spreng. l. c.*;—*Schult. o. c. p.* 501.) Introduced in 1832. Has not fl.

MYOGALUM, Lk. (*Handb.* 1, *p.* 164;—*Endl. gen. pl.* 1, *p.* 146.)

1. *nutans*, Lk. (*l. c.*—Ornithogalum nutans, *L.*;—*Spreng. syst.* 2, *p.* 32;—*Schult. syst.* 7, *p.* 506; 8. *p.* 1697;—*E. B.* 28, *t.* 1997;—*Jacq. austr. t.* 301;—*B. M.* 8, *t.* 269;—*Red. lil. t.* 253.—Albuca nutans, *Reichb. fl. germ. exc. p.* 110.) ♃. Europe. Asia Minor. Fl. large, greenish-white, C. S.; fr. 0.

ALLIUM, L. (*Spreng. syst.* 2, *p.* 5, *No.* 1186;—*Endl. gen. pl. p.* 1, 146.)

1. *sativa*, L. (*Spreng. syst.* 1, *p.* 33;—*Schult. syst.* 8, *p.* 1000;—*Lour. cochinch. p.* 201;—*Roxb. fl. ind.* 2, *p.* 142;—*J. Grah. Cat. B. pl. p.* 220.—Porrum sativum, *Reichb. fl. germ. exc. p.* 110.) রসুন *Rushoon Common Garlic.* ♃. Sicily. Cultivated in gardens. Fl. small, white H. S.
2. *controversum*, Schrad. (*Schult. o. c. p.* 1001.—A. Ophioscorodon, *Lk.*;—*Spreng. l. c.*) ♃. Egypt. France. Fl. small, purplish, C. S.
3. *Scorodoprasum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1002;—*Fl. Dan. t.* 1455.) *Rocambole.* ♃. N. and M. Europe. Introduced in March, 1841. Has not fl.
4. *vineale*, L. (*Spreng. o. c. p.* 33;—*Schult. o. c. p.* 1005;—*E. B.* 28, *t.* 1974.) ♃. Europe. Fl. small, pale-rose-coloured, with green keels, C. S.; fr. 0.
5. *proliferum*, Roxb. (*H. B. p.* 24.—*Schrad.* ?) ♃. China. Introduced into H. C. G. in 1796; and there fl. C. S. (*Roxb.*)

6. *Porrum*, L. (*Spreng. syst.* 2, *p.* 34;—*Schult. o. c. p.* 1008;—*Roxb. fl. ind.* 2, *p.* 141;—*J. Grah. Cat. B. pl. p.* 221.—Porrum commune, *Reichb. fl. germ. exc. p.* 111;—*Plenck. ic.* 253;—*Blackw. ic. t* 421) পরু *Puroo. Common Leek.* 4. ♂. Native country unknown. Cultivated in gardens. Fl. small, greenish-white, or somewhat purplish, H. S.

7 *Ampeloprasum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1010;—*E. B.* 24, *t.* 1657;—*Red. lil. t* 385;—*B. M.* 34, *t.* 1385, excl. β —A. Ampeloprasum, *a. B. M.* 38. *t.* 1560,) 4. Europe. Fl. smallish, pale purple, C. S., but rare; fr. 0.

8. *ascalonicum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1023;—*Plenck. ic. t.* 258;—*Roxb. fl ind.* 2, *p.* 142;—*J. Grah. Cat. B. pl. p.* 220.—Porrum ascalonicum, *Reichb.*) গন্ধন *Gundhun. Schallot.* 4. Syria. Asia Minor. Palestine. Cultivated in gardens. Fl. small, white, with a green keel, C. S.; fr. 0.

β. *chinense.* (A. ascalonicum, *Lour. cochinch. p.* 202, not L.) 4. China. Bulbs small, whitish, the size of a nut. Fl. C. S.

9. *Cepa*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1024;—*Lam. ill. t.* 242, *f.* 2;—*Sm. fl. gr. t.* 326;—*Lour.*;—*Roxb. fl. ind.* 2, *p.* 142;—*J. Grah. Cat. B. pl. p.* 220.—Porrum Cepa, *Reichb.*) পেয়াজ *Peyaj. Common Onion.* ♂. Native country unknown. Commonly cultivated. Fl. small, white, or greenish-purplish-white with a green keel, C. S.; fr. 0.

10. *Schoenoprasum*, L. (*Spreng. o. c. p.* 39.—*Schult. o. c. p.* 1025;—*E. B.* 34, *t.* 2441.) *Chives.* 4. Europe, from Lapland to Italy. Fl. smallish, purplish-rose-coloured, C. S., but very rare.

11. *fistulosum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1029;—*B. M.* 30, *t.* 1230.) 4. Siberia. Altai Alps. Introduced in 1822. Has not fl.

12. *oleraceum*, L. (*Spreng. o. c. p.* 35, *excl. syn*;—*Schult. o. c. p.* 1037;—*E. B.* 7, *t.* 488.) 4. Europe. Introduced in 1822. Has not fl.

13. *carinatum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1038;—*E. B.* 24, *t.* 1658.—A. foetidum, *Lk.*—Codonoprasum carinatum, *Reichb.*) 4. Europe. Introduced in 1822. Has not fl.

14. *caucasicum*, Bieb. (*Spreng. o. c. p.* 1053.—A. paniculatum, *B. M.* 25, *t.* 973, excl. syn.) 4. Caucasus. Introduced in 1822. Has not fl.

15. *nutans*, L. (*Spreng. o. c. p.* 34.—*Schult. o. c. p.* 1065;—*B. M.* 28, *t.* 1143.) 4. Siberia. Introduced in 1822. Has not fl.

16. *glaucum*, Schrad. (*Schult. o. c. p.* 1066.—A. senescens, *B. M.* 29, *t.* 1150, not L. and excl. most of the syn.) 4. Siberia. Introduced in 1822. Has not fl.

17. *stellatum*, Ker. (*B. M.* 38, *t.* 1576, excl. β;—*Spreng. o. c. p.* 38.—*Schult. o. c. p.* 1088.) 4. N. America. Introduced in 1822. Has not fl.

18. *triquetrum*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1111.—*B. M.* 22, *t.* 869.—*Red. lil. t.* 319.) 4. S. Europe. N. Africa. Fl. middle-sized, white with green keels, C. S.; but rare.

19. *Moly*, L. (*Spreng. o. c. p.* 36;—*Schult. o. c. p.* 1119;—*B. M.* 14, *t.* 499.) 4. S. Europe. Introduced in 1825. Has not fl.

20. *victorialis*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 1122.—*Red. lil. t.* 265;—*B. M.* 30, *t.* 1222.) 4. Alps of M. and S. Europe. Introduced in 1825. Has not fl.

21. *fragrans*, Vent. (*Spreng. o. c. p.* 37;—*Schult. o. c. p.* 1125;—*Red. lil. t.* 68.—A. inodorum, *Ait.*; *B. M.* 28, *t.* 1129, excl. syn. Michx.) 4. Virginia, Carolina. Mexico.

γ. *nepalense*, (A. fragrans, β. nepalense, *B. Reg.* 11, *t.* 898.) 4. Nepal. Introduced in 1840. Has not fl.

22. *striatum*, Jacq. (*ic. rar.* 2, *t.* 366;—*Spreng. o. c. p.* 39;—*Schult. o. c. p.* 1128;—*B. M.* 26, *t.* 1035, and 37, *t.* 1524.) 4. Canada. Carolina. Virginia, not H. C. G. Fl. 5-6 lines, white, with green keels, C. S.; fr. 0.

23. *tuberosum*, Roxb. (*H. B. p.* 24; *fl. ind.* 2, *p.* 141, not Rottl.) 4. Cultivated about Calcutta. In H. C. G. fl. R. S. The natives use it as an article of diet, as leeks are used in Europe. (*Roxb.*) This species, in Roxb. fl. ind. l. c. called বঙ্গ গন্ধীনা *Bunga-ghundeena*, is unknown to us, as well as to our oldest native gardeners, who have hitherto been unsuccessful in their endeavours to procure it from the neighbourhood, or H. C. G. It is enumerated in Wall. Cat., as "Roxb. Hb. Madr. Cultivated in the Mission garden, Tranquebar," while Royle simply mentions it as Roxburgh's plant. A. tuberosum, Rottl. (Spreng. syst. 2, p. 38;—Schult. 8, p. 1119.) differs from Roxburgh's described in. fl. ind. l. c. by its terete scapes, two-valved spathes, obtuse sepals, and its stamens equalling the perianth.

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* *Muscari maritimum*, Desf. 4. Carthage. Sicily.—*Hyacinthus spicatus*, Sm.; B. Reg. 22, t. 1869. 4. Zante.—*Daubenya aurea*, Lindl; B. Reg. 21, t. 1813. C. G. H.—*D. fulva*, Lindl.; B. Reg. 21, 1839, t. 53. 4. E. Coast of Africa, or Madagascar.—*Scilla lusitanica*, L.; B. M. 45, t. 1999. 4. Portugal. Spain.—*S. parviflora*, Desf. 4. Algiers. —*Ornithogalum chloroleucum*, Lindl.; B. Reg. 22, t. 1853. 4. Valparaiso.—*Allium monspesulanum*, Willd. 4. Montpellier.—*A. multiflorum*, Desf. 4. Algiers.—*A. polianthum*, Lam 4. Nizza.—*A. segetum*, Jan. 4. Sicily.—*A. junceum*, Sm. 4. Cyprus.—*A. palustre*, Pourr. 4. Spain.—*A. pusillum*, Cyrill. 4. Sicily.—*A. oxypetalum*, Don. 4. S. Europe.—*A. asperum*, Don. 4. S. Europe.—*A. paniculatum*, L. 4. Italy.—*A. pallens*, 4 L. Smyrna.—*A. tenuiflorum*, Ten. 4. Italy.—*A. pulchellum*, Lam. 4. Italy.—*A. flavum*, L. 4. Italy.—*A. moschatum*, L. 4. Italy.—*A. lusitanicum*, Lam. 4. Portugal.—*A. suaveolens*, Jacq. 4. Italy.—*A. roseum*, L. 4. S. France.—*A. glandulosum*, Lk. and Otto. 4. Mexico.—*A. Chamæmoly*, L.; B. M. 30, t. 1203. 4. S. Europe. N. Africa.

b. Anthericinæ, (Anthericeæ, Endl. gen. pl. 1, p. 147.)

ASPHODELUS, L. (*Spreng. syst.* 2, *p.* 7, *No.* 1236;—*Endl. l. c.*) *Asphodel.*

1. *creticus*, Lam. (*Spreng. syst* 2, *p.* 83, excl. syn.;—*Schult. syst.* 7, *p.* 485;—*Desf. ann. mus.* 10, *p.* 220, *t.* 11.) 4. Candia. Calabria. Introduced in 1827. Has not fl.
2. *albus*, Willd. (*Spreng. o. c. p.* 82;—*Schult. o. c. p.* 486.—A. ramosus, *B. Red. lil. t.* 314;—*Reichb. fl. germ. exc.* 1, *p.* 117, not L.) 4. Upper Italy. Introduced in 1827. Fl. ?
3. *ramosus* L. partly. (*Spreng. o. c. p.* 83;—*Schult. o. c. p.* 487;—*Sibth. fl. gr. t.* 334;—*B. M.* 21, *t.* 799;—*Red. lil.* A. *t.* 178.) 4. Mediterranean shores. Fl. large, white, with purple keels, Feb.; fr. March.
4. *fistulosus*, L. (*Spreng. o. c. p.* 82;—*Schult. o. c. p.* 490;—*Red, lil. t.* 178;—*Cav. ic.* 3, *t.* 102;—*Gärtn, fr.* 1, *p,* 68, *t.* 17, *f.* 6;—*B. M.* 25, *t.* 984.—*B. Cab. t.* 1124.) 4. S. Europe. Mauritius. Fl. 9 lines in diameter, whitish, with a purplish longitudinal line, beforeexpansion rosy-white, C. S.
5. *clavatus*, Roxb, (*fl, ind.* 2, *p.* 148;—*J. Grah. Cat. B. pl. p.* 219;—*Schult. o. c. p.* 491.) ⊙ Peninsula of India, Interior of Bengal. Doab. Kamaon. Fl. small, white, with brown keels, C. S.; fr. H. S.

ASPHODELINE, Reichb. (*fl. germ. exc. p.* 116;—*Endl. gen. pl.* 1, *p.* 147.)

1. *lutea*, Reichb. (*l. c.*—Asphodelus luteus, *L.*;—*Spreng. syst.* 2. *p.* 83;—*Schult. syst.* 7, *p.* 483;—*Jacq. vind. t.* 77;—*B. M.* 20, *t.* 773.—*Red. lil. t.* 223.) 4. Sicily. Dalmatia. Morea. Tauria. N. Africa. Fl. $1\frac{3}{4}$-2 inches in diameter, yellow, with green keels, sweet-scented, Feb., but rare; fr. 0.
2. *tenuior*, Endl. (Asphodelus tenuior, *Bieb.*;—*B. M.* 53, *t.* 2626.) 4. N. Caucasus. Introduced in 1825. Has not fl.

HEMEROCALLIS, L. (*Spreng. syst.* 2, *p.* 6, *No.* 1214;—*Endl. gen. pl.* 1, *p.* 147.) *Day Lily.*

1. *flava*, L. (*Spreng. syst.* 2, *p.* 65;—*Schult. syst.* 7, *p.* 422;—*Jacq. vind. t.* 139;—*B. M.* 1, *t.* 19;—*Red. lil. t.* 15, excl. β.) 4 Siberia. Hungary. Austria. Fl. 2-$3\frac{1}{2}$ inches, yellow. Introduced in 1823. Has not fl.
2. *graminea*, Andr. (*B. Repos. t.* 244;—*Schult. o. c. p.* 423.—*B. M.* 22, *t.* 873.) 4. Siberia. Introduced in 1822. Has not fl.
3. *disticha*, D. Don. (*pr. fl. nep. p.* 53;—*Spreng. c. p. p.* 135;—*Schult. l. c.*—H. fulva, *Thunb. jap. p.* 142, not L.) 4. Japan. Gossain Than. Introduced in 1822. Has not fl.
4. *fulva*, L. (*Spreng. syst.* 2, *p.* 65;—*Schult. o. c. p.* 424;—*B. M.* 2, *t.* 64;—*Red. lil. t.* 16;—*Roxb. fl. ind.* 2, *p.* 168;—*J. Grah. Cat. B. pl. p.* 217.) Hind: *Gool-nurgis.* 4. China. Fl. 4 inches, orange, with deeper coloured veins, and a yellowish-greenish tube, April, May and June; fr. 0.

CYANELLA, L. (*Spreng. syst.* 2, *p.* 7, *No.* 1231;—*Endl. gen. pl.* 1, *p.* 148.)

1. *capensis*, L. (*Spreng. syst.* 2, *p.* 78;—*Schult. syst.* 7, *p.* 492;—*Jacq. vind.* 3, *t.* 35;—*B. Repos. t.* 141;—*B. M.* 16, *t.* 568;—*Red. lil. t.* 373.) 4. C. G. H. Introduced in March, 1841. Has not fl. yet.
2. *lutea*, Thunb. (*Spreng. l. c.;—Schult. o. c. p.* 493;—*B. M.* 31, *t.* 1252.) 4. C. G. H. Introduced in March, 1841. Has not fl. yet.

ANTHERICUM, L. (*Spreng. syst.* 2, *p.* 7, *No.* 1238;—*Endl. gen. pl.* 1, *p.* 148.)

1. *canaliculatum*, Ait. (*Schult. syst.* 7, *p.* 460;—*B. M.* 28, *t.* 1124.—Phalangium canaliculatum, *Poir.*—Bulbine canaliculata, *Spreng. syst.* 2, *p.* 86.) 4. C. G. H. Introduced in 1825. Has not fl.
   β. *rufum*, (*B. Reg.* 11, *t.* 877.) 4. C. G. H. Introduced with α. Has not fl.
2. *revolutum*, L. (*Spreng. syst.* 2, *p.* 84;—*Schult. o. c. p.* 462;—*B. M.* 26, *t.* 1044, excl. syn. A. flexifolium.—Phalangium revolutum, *Pers.*) 4. Introduced in 1825. Has not fl.
3. *graminifolium*, Willd. (*Spreng. l. c.;—Schult. o. c. p.* 463.—A. undulatum, *Jacq. ic. rar.* 2, *t.* 411.—Phalangium undulatum, *Poir.*) 4. C. G. H. Introduced in 1825. Has not fl.
4. *vespertinum*, Jacq. (*hört. schönbr.* 1, *p.* 44, *t.* 85;—*Spreng. o. c. p.* 85;—*B. M.* 26, *t.* 1040.—Phalangium vespertinum, *Poir.*) 4. C. G. H. Introduced in March, 1841. Has not fl. yet.
5. *triflorum*, Ait. (*Spreng. o. c. p.* 84;—*Schult. o. c. p.* 466.—A. bipedunculatum, *Jacq. coll. suppl.* 88, *ic.* 2, *t.* 410.—Phalangium pedunculatum, *Poir.*—P. triflorum, *Pers.* β.) 4. C. G. H. Introduced in 1825. Has not fl.
6. *Liliago*, L. (*Spreng. l. c.;—Schult. o. c. p.* 467;—*Jacq. vind.* 1, *t.* 83.—Ornithogalum gramineum, *Lam.*—Phalangium Liliago, *Schreb*;—*Red. lil. t.* 269.—P. Liliago. β. minus, *B. M.* 23, *t.* 914.) 4. From Norway, through the whole of Europe, to N. Africa. Fl. 6-9 lines, white, R. S.; C. S.
   β. *majus*. (Phalangium Liliago. α. majus, *B. M.* 39, *t.* 1635.) 4. Europe. Fl. more than 1 inch in diameter, white, the segments towards the apex externally greenish, R. S; fr. C. S.
7. *ramosum*, L. (*Spreng. l. c.*;—*Schult. l. c.*;—*Jacq. austr. t.* 161.—Phalangium ramosum, *Lam.;—Red. lil. t.* 287;—*B. M.* 26, *t.* 1055.) 4. Temperate Europe, except England. Tauria. Fl. 3-6 lines, snow-white, R. S. but rare; fr. 0.
? 8. *nepalense*, Spreng. (*c. p. p.* 135;—*Schult. o. c. p.* 468.—Phalangium nepalense, *Lindl. trans. hort. soc* 6, *p.* 227;—*B. Reg.* 12, *t.* 998.) 4. Gossain Than. Introduced in 1825. Fl. ?
9. *tuberosum*, Roxb. (*Corom.* 2, *t.* 138; *fl. ind.* 2, *p.* 149;—*Spreng. syst.* 2, *p.* 85;—*Schult. o. c. p.* 469;—*J. Grah. Cat. B. pl. p.* 219.—Phalangium alatum, *Buch.*) 4. Palaveram, Vendalore, Both Concans.

Morung Mountains. Assam. Fl. pure white, about the size and appearance of the snow-drop, R. S; fr. C. S. Tubers edible. (*J. Grah.*)

10. *Nimmonii*, J. Grah. Bombay. S. Concan.
11. *glaucum*, Ruiz. and Pav. (*Spreng. l. c.;—Schult. l. c.;—B. M.* 64, *t.* 3610;—*B. Cab. t.* 1580.—Phalangium glaucum, *Poir.*) 4. Peruvian Andes. Introduced in 1827. Has not fl.
12. *fragrans*, Jacq. (*hort. schönbr.* 1, *p.* 45, *t.* 86;—*Spreng. o. c. p.* 83;—*Schult. o. c. p.* 470.—Phalangium fragrans, *Poir.*—Albuca fugax, *Ker.; B. Reg.* 4, *t.* 311.) 4. C. G. H. Introduced in 1825. Has not fl.
13. *exuviatum*, Jacq. (*ic. rar.* 2, *t.* 415;—*Spreng. o. c.;—Schult. o. c. p.* 471.—Phalangium exuviatum, *Poir.*—Albuca exuviata, *B. M.* 22, *t.* 871.) 4. C. G. H. Introduced in 1825. Has not fl.
14. *filifolium* Jacq. (*ic. rar.* 2, *t.* 414;—*Spreng. o. c.;—Schult. o. c.*—Phalangium filifoluim, *Poir.*—Albuca filifolia, *Ker.; B. Reg.* 7, *t.* 557.) 4. C. G. H. Introduced in March 1841. Has not fl. yet.
15. *physodes*, Jacq. (*ic. rar.* 2, *t.* 418.—Phalangium marginatum, *Poir.* excl. Anth. marginatum, Thunb.—Albuca physodes, *Ker.; B. M.* 26, *t.* 1046.—Cæsia physodes, *Spreng. syst.* 2, *p.* 88. excl. syn.) 4. C. G. H. Introduced in 1825. Has not fl.

Czackia, Andrz. (*Spreng. syst.* 2, *p.* 8, *No.* 1246.—*Endl. gen. pl. p.* 148, under Anthericum.)

1. *Liliastrum*, Andrz. (*Spreng. syst.* 2, *p.* 90;—*Schult. syst.* 7, *p.* 424.—Hemerocallis Liliastrum, *L. syst.* 2, *p.* 142.—Anthericum Liliastrum, *L. sp. p.* 445;—*B. M.* 9, *t.* 318.—Phalangium Liliastrum, *Pers.;—Red. lil. t.* 255.—Ornithogalum liliforme, *Lam.*) 4. Alps of Europe. Poland. Introduced in 1825. Has not fl.

Bulbine, Willd. (*Spreng. syst.* 2, *p.* 7, *No.* 1239;—*Endl. gen. pl.* 1, *p.* 148, under Anthericum.)

1. *frutescens*, Willd. (*Spreng. syst.* 2, *p.* 85;—*Schult. syst.* 7, *p.* 442.—B. caulescens, *L. hort. cliff.*—Anthericum frutescens, *L.;—Red. lil. t.* 283;—*DC. pl. gr. t.* 14;—*B. M.* 21, *t.* 816.) 4. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
2. *rostrata*, Willd. (*Spreng. l. c.;—Schult. l. c.*—Anthericum rostratum, *Jacq. ic. rar.* 2, *t.* 403.) 4. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
3. *longiscapa*, Willd. (*Spreng. l. c.* excl. syn.;—*Schult. o. c. p.* 443.—Anthericum longiscapum, *Wiltd. sp.;—Jacq. ic. rar.* 2, *t.* 404;—*Red. lil. t.* 423;—*B. M.* 33, *t.* 1339.) 4. C. G. H. Fl. middle-sized, yellow, C. S., but very rare; fr. 0.
4. *pugioniformis*, Lk. (*Spreng. l. c.;—Schult. o. c. p.* 444.—Anthericum pugioniforme, *Jacq. ic. rar.* 2, *t.* 405;—*B. Repos. t.* 386;—*B. M.* 35, *t.* 1454.) 4. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
5. *annua*, Willd. (*Spreng. l. c.;—Schult. o. c. p.* 445.—Anthericum annuum, *L.;—DC. pl. gr. t.* 8;—*B. M.* 35, *t.* 1451.) ⊙ C. G. H. Fl. 4-5 lines in diameter, yellow, Feb.; fr. March.

6. *præmorsa*, Spreng. (*l. c. p.* 86;—*Schult. o. c. p.* 446.—Anthericum præmorsum, *Jacq. ic. rar.* 2, *t.* 406.) 4. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
7. *latifolia*, Spreng. (*l. c.*;—*Schult. o. c. p.* 447.—Anthericum latifolium, *L. fil.*;—*Jacq. ic. rar.* 2, *t.* 408.) 4. C. G. H. Introduced in 1824. Fl. ?
8. *nutans*, Spreng. (*l. c.*;—*Schult. l. c.*—Anthericum nutans, *Jacq. ic. rar.* 2, *t.* 407.) 4. C. G. H. Introduced in 1824. Fl. ?
9. *alooïdes*, Willd. (*Spreng. l. c.*;—*Schult. o. c. p.* 448.—B. acaulis, *L. hort. cliff.*—Anthericum alooïdes, *L. sp.*; *Lam. ill. t.* 240, *f.* 2;—*DC. pl. gr. t.* 26;—*Red. lil.* 5, *t.* 283,—*B. M.* 32, *t.* 1317.—*B. Cab. t.* 996.) 4. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
10. *ciliata*, Lk. (*Spreng. l. c.*;—*Schult. o. c. p.* 450.—Anthericum ciliatum, *L. fil.* not Jacq.) 4. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.
11. *triquetra*, Spreng. (*l. c.*;—*Schult. o. c. p.* 451.—Anthericum triquetrum, *L. fil.*) 4. C. G. H. Fl. middle-sized, yellow, C. S.; fr. 0.

CHLOROPHYTUM, Ker. (*Spreng. syst.* 2, *p.* 7, *No.* 1241;—*Endl. gen. pl.* 1, *p.* 148.)

1. *laxum*, R. Br. (*pr. p.* 277.—*Spreng. o. c. p.* 88;—*Schult. syst.* 7, *p.* 452.) 4. Tropical New Holland. Fl. smallish, green, R. S.; fr. C. S.
2. *inornatum*, Ker. (*B. M.* 27, *t.* 1071;—*Spreng. l. c.*;—*Schult. o. c. p.* 453.) 4. Sierra Leona. Introduced in 1827. Fl. ?
3. *Orchidastrum*, Lindl. (*B. Reg.* 10, *t.* 813;—*Spreng. l. c.*;—*Schult. l. c.*) 4. Sierra Leona. Introduced in 1827. Fl. ?
4. *elatum*, R. Br. (*pr. p.* 277, annot.;—*Spreng. l. c.*;—*Schult. o. c. p.* 454.—Anthericum elatum, *Ait.*—Phalangium elatum, *Poir*;—*Red. lil. t.* 191.—Asphodelus capensis, *L.*) 4. C. G. H. Introduced in 1822. Fl. ?

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* *Asphodelus prolifer* Bieb. ⊙ Armenia.—*A. æstivus*, Brot. 4. Portugal.—*Anthericum ramosissimum*, Schult. 4. Mexico.—*A. græcum*, L. 4. Candia. Morea.—*A. Nimmonii*, J. Grah. 4. S. Concan.—*Trichopetalum stellatum*, Lindl. (Anthericum plumosum, B. M. 58, t. 3084.) 4. Chili.—*T. gracile*, Lindl.; B. Reg. 18, t. 1535. 4. Chili.—*Thysanotus Banksii*, R. Br. 4. Tropical N. Holland.—*T. paniculatus*, R. Br. 4. Tropical. N. Holland.—*Cæsia lateriflora*, R. Br. 4. Tropical N. Holland.—*Chloopsis acaulis*, Bl. ⊙ Java.—*Tricoryne scabra*, R. Br. 4. Tropical N. Holland.—*T. anceps*, R. Br. 4. Tropical N. Holland.—*Echeandia terniflora*, Oct. 4 Mexico.—*Tulbaghia alliacea*, L.; B. M. 21, t. 806. 4. C. G. H.

c. Asparaginæ, (Asparageæ, Endl. gen. pl. 1, p. 150.)

DIANELLA, Lam. (*Spreng. syst.* 2, *p.* 8, *No.* 1252;—*Endl. l. c.*)

1. *ensifolia*, Red. (*lil.* 1, *t.* 1;—*Hort. Kew. ed.* 2, *part.* 2, *p.* 276, excl. syn. Mill.;—*B. M.* 34, *t.* 1404;—*Schult. syst.* 7, *p.* 349.—D. nemo-

rosa, *Jacq. hort. schönbr.* 1, *p.* 49, *t.* 94;—*Roxb. fl. ind.* 2, *p.* 164, excl. syn. Rumph. and Lam.—Dracæna ensifolia, *Ait.*, not Haw.;—*Gärtn. fr.* 1, *p.* 57, *t.* 16, *f.* 4, excl. syn. Rumph. and L.?) ♃. Mascarenhas Islands. China. Nepal. Sumatra. Fl. 2½ lines long, greenish white, and fr. nearly throughout the year.

EUSTREPHUS, R. Br. (*pr. p.* 281;—*Spreng. syst.* 2, *p.* 8, *No.* 1256;—*Endl. gen. pl.* 1, *p.* 150.)

1. *latifolius*, R. Br. (*l. c.*;—*Spreng. o. c. p.* 94;—*Schult. syst.* 7, *p.* 316;—*B. M.* 31, *t.* 1245.—Luzuriaga latifolia, *Poir.*) ♄ Port Jackson and tropical N. Holland. Fl. 6 lines long, lilac, C. S.; fr. 0.

ASPARAGUS, L. (*Spreng. syst.* 2, *p.* 8, *No.* 1257;—*Endl. gen. pl.* 1, *p.* 151.)

1. *officinalis*, L. (*Spreng. o. c. p.* 96;—*Schult. syst.* 7, *p.* 317;—*E. B.* 5, *t.* 339;—*Roxb. fl. ind.* 2, *p.* 150;—*J. Grah. Cat. B. pl. p.* 221.) हिल्लूया *Hillooa. Common Asparagus.* ♃. Europe. Cultivated. Fl. 2 lines, yellowish-green, March and April.
2. *Curillus*, Buch. (*Roxb. H. B. p.* 24; *fl. ind.* 2, *p.* 152.—A. filicinus, *Buch.*—*Spreng. c. p. p.* 136;—*Schult.* 7, *p.* 324.) ♃. Suembu. Nepal. Shreenagur. Kamroop. Introduced into H. C. G. under the name of A. Curillus, in 1801. Fl. July; fr. January. (*Roxb.*)
3. *scandens*, Thunb. (*Schult. o. c. p.* 325;—*Red. lil. t.* 407.) ♃. ◡ C. G. H. Introduced in 1821. Has not fl.
4. *racemosus*, Willd. (*Spreng. o. c. p.* 95;—*Schult. o. c. p.* 330;—*Roxb. fl. ind.* 2, *p.* 151.) शतमूली *Sutmoolee.* ♄ ◡ Ceylon. Bengal, (Serampore,) &c. Fl. small, pure white, delightfully fragrant, C. S.; fr. Feb. and March.
5. *asiaticus*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 331.) ♃. Asia. Introduced in 1822. Unknown to me.
6. *capensis*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 334;—*Jacq. schönbr.* 3, *p.* 8, *t.* 266.) ♄ C. G. H. Introduced in 1828. Has not fl.
7. *lanceus*, Thunb. (*Schult. o. c. p.* 335.) ♄ C. G. H. Introduced in 1828. Has not fl.
8. *æthiopicus*, L. (*Spreng. l. c.* excl. syn.;—*Schult. l. c.*) ♃. C. G. H. Introduced in 1828. Has not fl.
9. *falcatus*, L. (*Spreng. l. c.*;—*Schult. o. c. p.* 336.) ♄ Ceylon. Introduced in 1825. Fl.?
10. *acerosus*, Roxb. (*fl. ind.* 2, *p.* 150.) ♃. Prome. Attran. Tavoy. Sukanaghur. Fl. small, pure white, delightfully fragrant, Sept. to Dec.; fr. Feb. and March.
11. *adscendens*, Roxb. (*fl. ind.* 2, *p.* 153.) ♃. Rohilcund. Fl. small, pure white, Oct. and Nov.; fr. Feb. and March.

DRACÆNA, Vandell. (*Spreng. syst.* 2, *p.* 8, *No.* 1253;—*Endl. gen. pl.* 1, *p.* 151.) *Dragon Tree.*

1. *reflexa*, Lam. (*Spreng. o. c. p.* 92;—*Schult. syst.* 7, *p.* 340;—*Red. lil. t.* 92.) ♃. St. Helena. Madagascar. Mauritius. Fl. 6 lines, yellowish green, sweet-scented, H. S.

2. *cernua*, Jacq. (*hort. schönbr.* 1, *p.* 59, *t.* 96;—*Spreng. l. c.*;—*Schult. o. c. p.* 341;—*Roxb. fl. ind.* 2, *p.* 158.—D. reflexa, *B, Red. lil. fol.* 92.) ♄ Mauritius. Fl. 1 inch, yellowish-white, purplish-tinged, sweet-scented, H. S.
3. *terminalis*, Willd. (not Jacq.—*Bl. enum. pl. jav. p.* 10;—*Schult. o. c. p.* 343, excl. syn. Spreng.;—*Roxb. fl. ind.* 2, *p.* 156.—Asparagus terminalis, *L.*—Terminalis alba, *Rumph.* 4, *t.* 34, *f.* 1.) ♄ Moluccas. China. Fl. 5 lines long, white, H. S.; fr. R. S.
4. *ferrea*, L. (*Spreng. o. c. p.* 90,—*Schult. o. c. p.* 344;—*B. M.* 46, *t.* 2053;—*Roxb. fl. ind.* 2, *p.* 158;—*J. Grah. Cat. B. pl. p.* 221;—*Jacq. ic. rar.* 2, *t.* 448;—*Red. lil.* 2, *p.* 90;—*Herb. gen. d. l'am. t.* 360;—*B. Cab. t.* 1224.—Terminalis rubra, *Rumph.* 4, *p.* 80, *t.* 34, *f.* 2.) ♄ China. Moluccas. Penang. Fl. small, pale-purple, Dec. to March; fr. 0.
5. *angustifolia*, Roxb. (*fl. ind.* 2, *p.* 155.—Terminalis angustifolia, *Rumph.* 4, *t.* 35.) ♄ Amboyna. Fl. smallish, greenish-white, H. S.; fr R. S.
6. *spicata*, Roxb. (*fl. ind.* 2, *p.* 157.) ♄ Chittagong. Fl. small, pale greenish-yellow, H. S.; fr. R. S.
7. *maculata*, Roxb. (*fl. ind.* 2, *p.* 157.) ♄ Sumatra. Fl. small, pale greenish-yellow, H. S.; fr. R. S.
8. *terniflora*, Roxb. (*fl. ind.* 2, *p.* 159.) ♄ Silhet. Fl. small, pale, greenish-white, Jan. and Feb.; fr. Dec.
9. *atropurpurea*, Roxb. (*fl. ind.* 2, *p.* 160.) ♄ Silhet. Fl. small, pale rose-coloured-white with deep-red, March and April; fr. Dec.
10. *esculenta*, Bojer. (*Wall. MSS.*) ♄ Madagascar. Fl. small, white, C. S.; fr. 0.
11. *ensiformis*, Wall. MSS. (D. ensifolia, *Wall. Cat.*, not Haw.) ♄ Silhet. Introduced in 1840. Has not fl. yet.
12. *plicata*, Wall. MSS. ♄ Native place? Introduced in 1840. Has not fl. yet.

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* *Dianella odorata*, Bl.; Rumph. 5, p. 185, t. 73. ♃. Indian gardens.—*D. coerulea*, Sims.; B. M. 15, t. 506. ♃. Port Jackson.—*D. congesta*, R. Br. ♃. Tropical N. Holland.—*D. longifolia*, R. Br.; B. Reg. 9, t. 734. ♃. Port Jackson.—*D. lævis*, R. Br. ♃. Tropical N. Holland.—*D. revoluta*, R. Br.; B. Reg. 13, t. 1120. ♃. Tropical N. Holland, and Port Jackson.—*D. rara*, R. Br. ♃. Tropical N. Holland.—*D. strumosa*, Ker.; B. Reg. 9, t. 751. ♃. N. Holland,—*D. mauritiana*, Bl. ♄ Mauritius. Cultivated in the Moluccas.—*Eustrephus angustifolius*, R. Br. ♄ ⌒ Tropical N. Holland.—*Geitonoplesium cymosum*, Cunningh.; B. M. 59, t. 3131. (Luzuriaga, (not Ruiz. and Pav.) cymosa, R. Br.) ♄ ⌣ Tropical N. Holland.—*Asparagus maritimus*, Pall. ♃. Caspian Sea.—*A. tenuifolius*, Lam. ♃. S. France. Italy.—*A. verticillatus*, Bieb. ♃. Smyrna.—*A. umbellulatus*, Bresley, ♃. Mauri-

tius.—*A. crispus*, Lam. ♃. Mauritius.—*A. aphyllus*, L. ♄ S. Europe. N. Africa.—*A. horridus*, L. ♄ S. Europe.—*A. Broussoneti*, Spreng. ♄ N. Africa.—*A. stipularis*, Forsk. ♃. Alexandria.—*A. fasciculatus*, R. Br. Tropical N. Holland.—*A. sarmentosus*, L.; Rheed 10, t. 10. Ceylon. Deccan. Concans.—*A. volubilis*, Buch. Monghir. Goalpara. Rajmahl. Nepal. Neelgherries.—*Myrsiphyllum asparagoïdes*, Willd. ♄ C. G. H.—*M. angustifolium*, Willd. ♃. C. G. H.—*Cordyline cannæfolia*, R. Br. ♄ Tropical N. Holland.—*C. stricta* (Dracæna stricta. Sims; B. R. 12, t. 956.—B. M. 52, t. 2575.) ♄ N. Zealand.—*C. australis*, (Dracæna australis, Forst.) ♄ N. Holland.—*C. parviflora*, Humb. and Bonpl. ♄ Mexico.—C. *stricta*, Australia.—*Dracæna Draco*, L. ♄ Canaries. Socotora.—*D. marginata*, Lam. ♄ Madagascar.—*D. umbraculifera*, Jacq.; B. Cab. t. 289. ♄ Java. Cultivated in the Mauritius.—*D. fragrans*, Ker; B. M. 27, t. 1081. ♄ Guinea.—*D. ovata*. Ker.; B. M. 29, t. 1179. ♄ Sierra Leona.—*D. acuminata*, Thunb. Bourbon. Mauritius.—*D. hemichrysa*, Commers. ♃. Mauritius.—*D. flabelliformis*, Bory. ♄ Mauritius.—*D. Fontanesiana*, Schult. ♄ Bourbon.—*D. surculosa*, Lindl.; B. Reg. 11, t. 1469. ♄ Sierra Leona.—*Aphyllanthus monspeliensis*, L; B. M. 28, t. 1132. ♃. S. Europe.—*Xanthorrhoea Pumilio*, R. Br. ♃. Tropical N. Holland.

ORDER CCXLIV.—COMMELYNACÆ, Lindl. Nat. Syst. p. 354.

THE SPIDER-WORT TRIBE.

Herbs, by Lindl. (excluding Hagenbachia, and adding Murdannia,) referred to 14 genera. Of these, Spreng. and Schult. enumerate about 45 species for S. America, Mexico, and the W. Indies; 15 for New Holland; 8 for N. America; 3 for Guinea; 2 for Arabia; 2 for China; and 2 for Japan. In S. Africa have been discovered about 5 species (*Harvey*); and in the E. Indies 59, viz. 12 of *Commelyna*, (all over India); 28 of *Aneilema*, (all over India.); 2 of *Pollia*, (Java.); 8 of *Tradescantia*, (all over India.); 6 of *Cyanotis*, (all over India.); 1 of *Murdannia*, (Himalayas, Khassya Mountains, Kheree Jungles,); and 2 of *Campelia*, (Java.) Properties unknown.

COMMELYNA, Dill. (*Endl, gen. pl.* 1, *p.* 125.—Commelina, *Spreng. syst.* 1, *p.* 128, *No.* 185;—*R. Br. pr. p.* 269.)

1. *salicifolia*, Roxb. (*fl. ind.* 1, *p.* 172; *ed. Carey*, 1, *p.* 176;—*Spreng. syst.* 1, *p.* 171.) পানী কাঞ্চড়া *Panee-Kanchura.* ⊙ Coromandel. Bengal, (Serampore.) Fl. smallish, deep azure, and fr. R. S.
2. *bengalensis*, Forsk. (*Roxb. fl. ind.* 1, *p.* 171; *ed. Carey*, 1, *p.* 175;—*J. Grah. Cat. B. pl. p.* 223.) কাঞ্চড়া *Kanchura.* কনড়কা *Kanuraka.*

⊙ Peninsula of India. Bengal, (Serampore.) N. Doab. &c. Fl. small bright-blue, and fr. R. S.

3. *communis*, L. (*Spreng. o. c. p.* 172;—*Roxb. o. c. p.* 171; *ed. Carey*, 1, *p.* 175;—*J. Grah. Cat. B. pl. p.* 223;—*Red. lil. t.* 206.) জটা কাঞ্চড়া *Juta-Kanchura*, ⊙ Peninsula of India. Bengal, (Serampore.) N. Doab &c. Fl. small, bright-blue, and fr. R. S.

4. *cæspitosa*, Roxb. (*fl. ind.* 1, *p.* 174; *ed. Carey*, 1, *p.* 178.) ⊙ Chittagong. Bengal, (Serampore.) &c. Fl. small, blue, and fr. R. S.

ANEILEMA, R. Br. (*pr.* 270;—*Spreng. syst.* 1, *p.* 173, and *Endl. gen. pl.* 1, *p.* 125, under Commelina.)

2. *nudiflorum*, R. Br. (*o. c. p.* 271, *annot.*—Commelina nudiflora, *L.*;—*Roxb. fl. ind.* 1, *p.* 173; *ed. Carey*, 1, *p.* 177;—*Spreng, syst.* 1, *p.* 173;—*J. Grah. Cat. B. pl. p.* 223, excl. syn. Aneilema nudicaule.—Tradescantia malabarica, *L.*;—*Spreng. syst.* 2, *p.* 115;—*Schult. syst.* 8, *p.* 1155;—*J. Grah. l. c.*—*Rheed.* 9, *t*, 63.) কান্দলি *Kandali.* ⊙ Peninsula of India. Bengal, (Serampore.) Silhet, &c. Fl. small, blue, and fr. R. S.

1. *vaginatum*, R. Br. (*pr. p.* 271, *annot.*—Commelina vaginata, *L.*;—*Spreng. syst.* 1, *p.* 173.) ⊙ Coromandel. Bengal, (Serampore.) Fl. small, blue, and fr. R. S.

3. *herbaceum*, Wall. (*Cat.*—Commelina herbacea, *Roxb. fl. ind.* 1, *p.* 175; *ed. Carey*, 1, *p.* 179;—*Spreng. syst.* 1, *p.* 174.) ♃. Rangoon. Tavoy. Banks of the Attran. Travancore. Sumatra. Fl. small, bluish-white, and fr. nearly throughout the year.

4. *nanum*, (Commelina nana, *Roxb. fl. ind.* 1, *p.* 173; *ed. Carey*, 1, *p.* 176;—*Spreng. syst.* 1, *p.* 174.) ⊙ Bengal, (Serampore,) &c. Fl. small, bright-blue, fr. R. and C. S.

TRADESCANTIA, L. (*Spreng. syst*, 2, *p.* 10, *No.* 1287;—*Endl. gen. pl.* 1, *p.* 126.)

1. *fuscata*, Lodd. (*B. Cab. t.* 374;—*Spreng. syst*, 2, *p.* 115;—*Schult. syst.* 8, *p.* 1156;—*B. Reg.* 6, *t.* 482;—*B. M.* 49, *t.* 2330.) ♃. Brazil. Fl. 6 lines, blue-violet, outside paler, R. S.; fr. 0.

2. *paniculata*, Roxb. (*Corom.* 2, *t.* 109; *fl. ind.* 2, *p.* 119;—*Spreng. o. c. p.* 117;—*Schult. o. c. p.* 1158.) ⊙ Moist vallies on the Coromandel coast. Fl. small, purple-blue, R. S.

3. *erecta*, Jacq. (*ic. rar.* 2, *t.* 354;—*Red. lil. t.* 239;—*B. M.* 33, *t.* 1340;—*Spreng. o. c. p.* 116.—*Schult. o. c. p.* 1160.) ⊙ Mexico. Fl. 9 lines in diameter, deep-blue, R. S.; fr. C. S.

4. *crassifolia*, L. (*ic.* 1, *p.* 54, *t.* 75, descript. *p.* 397;—*Spreng. o. c. p.* 116;—*Schult. o. c. p.* 1172;—*B. M.* 39, *t.* 1598.) ♃. New Spain. Mexico. Fl. 16 lines in diameter, purple-violet, R. S.

5. *virginica*, *L.* (*Spreng. syst.* 2, *p.* 116;—*Schult. syst.* 8, *p.* 1173;—*B. M.* 3, *t.* 105, *p.* 23;—*Roxb. Hort. Beng.*—Commelina virginica, *Roxb. Hort. Beng. p.* 5.) ♃. Virginia. Fl. 6-9 lines long, violet, R. S.; fr. C. S.

6. *discolor*, L'Herit. (*Sert. angl. p.* 8, *t.* 12;—*Spreng. l. c.*;—*Schult. o. c. p.* 1177;—*Lam. ill. t.* 226, *f.* 2;—*B. M.* 30, *t.* 1192;—*Red. lil. t.* 168;—*Roxb. H. B. p.* 23;—*J. Grah. Cat. B. pl. p.* 223.) ♃. Shores of the Mexican Gulf. Fl. small, white, soon withering, and fr. nearly throughout the year. Domesticated about Serampore.

MURDANNIA, Royle. (*ill. p.* 403.)

1. *scapiflora*, Royle. (*o. c. t.* 95, *f.* 3.—Commelina scapiflora, *Roxb. fl. ind.* 1, *p.* 175; *ed. Carey*, 1, *p.* 178;—*Spreng. syst.* 1, *p.* 173.—Aneilema tuberosa; *Buch. Herb.*) ♃. Along the Himalayas, from the Khassya Mountains to Manma. Mussooree. Kheree Jungles. Fl. nearly 1 inch in diameter, lively blue, March and April; fr. 0.

CYANOTIS, D. Don. (*pr. fl. nep. p.* 45;—*Schult. syst.* 8, *p.* LXII;—*Endl. gen. pl.* 1, *p.* 126.)

1. *cristata*, Schult. (*syst.* 8, *p.* 1150.—Tradercantia cristata, *L.*; *Jacq. hort. vind.* 2, *p.* 67, *t.* 137;—*Spreng. syst.* 2, *p.* 116;—*B. Cab. t.* 639.—*B. M.* 35, *t.* 1435;—*J. Grah. Cat. B. pl. p.* 223.—T. imbricata. *Roxb. fl. ind.* 2, *p.* 120;—*J. Grah. l. c.*—Commelina cristata, *L. fl. zeyl.*—*Burm. ind. t.* 7, *f.* 4.—*Rheed.* 7, *t.* 58.) ☉ Java. Ceylon. Peninsula of India. Bengal, (Serampore.) &c. Fl. small, pale or dark-blue, R. S.; fr. C. S.
2. *barbata*, D. Don. (*pr. fl. nep. p.* 46;—*Schult. o. c. p.* 1153.—Tradescantia barbata, *Spreng. c. p. p.* 138.) ♃. Nepal. Fl. small, azure, R. S.; fr. 0.
3. *tuberosa*, Schult. (*l. c.*—Tradescantia tuberosa, *Roxb. Corom.* 2, *t.* 108; *fl. ind.* 2, *p.* 119;—*Spreng. syst.* 2, *p.* 115;—*J. Grah. Cat. B. pl. p.* 223.) ♃. Coromandel valleys. S. Concan. Fl. small, blue-purple, R. S.; fr. 0.
4. *axillaris*, Schult. (*syst.* 8, *p.* 1154.—Tradescantia axillaris, *L. Mant.*; *Spreng. l. c.*;—*Roxb. Corom.* 2, *t.* 107; *fl. ind.* 2, *p.* 118;—*J. Grah. Cat. B. pl. p.* 223.—Commelina axillaris, *L. sp.*—*Rheed.* 10, *t.* 13.) বাঘনলা *Baghanula.* ☉ Java. Ceylon. Peninsula of India. Bengal, (Serampore.) Fl. largish, deep-blue, R. S.; fr. C. S.

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* *Commelyna avenæfolia*, J. Grah. ☉ Kandalla Jungle.—*C. Nimmoniana*, J. Grah. ☉ Malabar. Hill.—*C. tuberosa*, L. B. M. 41, t. 1695; ♃. Mexico.—*C. gracilis*, Ruiz. and Pav.; B. M. 58, t. 3047. ♃. Lima.—*C. africana*, L.; B. M. 35, t. 1431. S. Africa.—*C. cyanea*, R. Br. Tropical N. Holland.—*C. lanceolata*, R. Br. Tropical N. Holland.—*C. ensifolia*, R. Br. Tropical N. Holland.—*C. undulata*, R. Br. Tropical N. Holland.—*Aneilema macrophyllum*, R. Br. Tropical N. Holland.—*A. giganteum*, R. Br. Tropical N. Holland.—*Pollia thyrsiflora*, Endl. (Lamprocarpus thyrsiflorus, Bl.) Java.—*Callisia monandra*, Schult. (Tradescantia monandra, Swz.) St. Domingo.—*Tradescantia geniculata*, Lam. ♃. Mexico.—*T. undata*, Humb. and Bonpl; B. Reg. 17, t. 1403. ☉ Mexico.—*T. latifolia*, Ruiz. and Pav.; B. Cab. t.

1300. ⊙ Lima.—*T. subaspera*, Ker.; B. M. 39, t. 1597. 2. N. America.—*T. diuretica*, Schult. fil. 2. Brazil.—*T. Karwinskyana*, Schult. 2. Mexico.—*T. crassula*, Lk. and Otto.; B. M. 56, t. 2935. 2. Brazil. —*T. cirrhifera*, Mart. 2. Mexico.—*T. rosea*, Vent.; B. Cab. t. 370. 2. S. Carolina.—*T. commelinoides*, Schult. 2. Mexico.—*T. caricifolia*, Hook.; B. M. 64, t. 3546. Texas.—*Campelia Zanonia*, Rich. Jamaica.—*C. mollissima*, Bl. 2. Java.—*Dichorisandra Aubletiana*, Schult. 2. Guiana.—*Cartonema spicatum*, R. Br. 2. Tropical N. Holland.

ORDER CCXLV.—BUTOMACEÆ, Lindl. Nat. Syst. p. 355.

Water and marsh plants, by Lindl. referred to 3 genera. Of these, 1 species of Hydrocleis is a native of S. America; 1 of Limnocharis a native of the W. Indies; and 2 of Butomus, natives of the E. Indies. One of the latter is also common to Europe and N. Asia. Properties unimportant.

Butomus, Tournef. (*Spreng. syst.* 2, *p.* 264, *No.* 1534;—*Endl. gen. pl.* 1, *p.* 129.)

1. *umbellatus*, L. (*Spreng. syst.* 2, *p.* 273;—*E. B.* 10, *t.* 651.) *Flowering Rush.* 2. Europe. N. Asia. N. India. Loodiana. Cashmere. Fl. largish, variously shaded with rose-colour, purple and white. Introduced in 1813. Fl.? Plant acrid, formerly considered deobstruent.
2. *lanceolatus*, Roxb. (*fl. ind.* 2, *p.* 315;—*Royle ill. p.* 401, *t.* 95, *f.* 1; —*J. Grah. Cat. B. pl. p.* 251.—B. latifolius, *D. Don.*;—*Spreng. c. p. p.* 157.) 2. Tank at Chiblee in the Surat district, N. W. Provinces of India, from the Turai of Nepal, as far as Seharunpore. Fl. middle-sized, white, with the sepals pale-green outside, and rose-tipped, R. S. but very rare.

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* *Limnocharis Plumieri* Rich.; B. M. 52, t. 2525. 2. W. Indies.—*Hydrocleis Humboldtii*, Rich. (Limnocharis Humboldtii, B. M. 60, t. 3248;—B. Reg. 19, t. 1640.) 2. S. America.

ORDER CCLVI.—ALISMACEÆ, R. Br.—Lindl. Nat. Syst. p. 355.

THE WATER PLANTAIN.

"All aquatic plants, with a lax tissue, and many with a fleshy rhizoma, which is eatable," (*Agardh.*) by Lindl. referred to 5 genera. Of these, Spreng. syst. enumerates about 12 species for N. America; 6 for Europe; 6 for S. America and the W. Indies; 1 for Guinea; 1 for Madagascar; 1

for Dahuria; 1 for China; and 1 for New Holland. In the E. Indies have been discovered 3 species of *Sagittaria*, (all over India, 1 also common to Europe and N. America); and 7 of *Alisma*, (Deyrah-Dhoon, the Khassya Mountains. Assam. Serampore. Tavoy. Nathpur. Ratangunj. Cheetam. 1 of them also common to Europe.) The rhizoma of several Alismas and Sagittarias eatable. A species of the latter is cultivated for food in China. The herbage is acrid. (*Agardh.*)

SAGITTARIA, L. (*Spreng. syst.* 2, *p.* 564, *No.* 2015;—*Endl. gen. pl.* 1, *p.* 128.) *Arrow-Head.*

1. *sagittifolia*, L. (*Spreng. syst.* 2, *p.* 632;—*E. B.* 2, *t.* 84;—*Gärtn. fr.* 2, *p.* 21, *t.* 84, *f.* 3;—*Roxb. fl. ind.* 3, *p.* 645.) ছোট কট *Choto-kut.* ♃. Peninsula of India. Bengal, (Serampore.) Nepal. Europe. N. America. Fl. 9 lines in diameter, pure-white, with a purplish base, Feb., March, and April; fr, April and May,
2. *obtusifolia*, L. (*Spreng. o. c. p.* 633;—*Roxb. o. c. p.* 646;—*J. Grah. Cat. B. pl. p.* 199;—*Rheed.* 11, *t.* 45.) বড় কট *Buro-kut.* ♃. Coromandel. Concans. Bengal, (Serampore,) &c. Fl. 3 lines long, white, R. and C. S.; fr. C. S.
3. *cordifolia*, Roxb. (*fl. ind.* 3, *p.* 647.—Alisma stellatum, *Hb. Buch.* A.? Hamiltonianum, *Wall. Cat.*) ⊙ Bengal, (Serampore. Silhet. Assam. Deyrah-Dhoon.) Fl. small. white, R. S.; fr. C. S.

ALISMA, L. (*Spreng. syst.* 2, *p.* 16, *No.* 1391;—*Endl. gen. pl.* 1, *p.* 128.) *Water Plantain.*

1. *Plantago*, L. (*Spreng. syst.* 2, *p.* 163, excl. syn.;—*R. Br. pr. p.* 342;—*E. B.* 12, *t.* 837;—A plantago aquatica, *Gärtn. fr.* 2, *p.* 22, *t.* 84, *f.* 4.) ♃. Europe. Deyrah-Dhoon. N. Holland. Fl. small, pale rose-coloured, R. S.; fr. 0.
2. *natans*, L. (*Spreng. l. c.*;—*E. B.* 11, *t.* 775.) ♃. Europe. N. America. Introduced in 1820. Fl.?
3. *ranunculoïdes*, L. (*Spreng. l. c.*;—*E. B.* 5, *t* 326.) ♃. Europe. Introduced in 1820. Fl.?
4. *parnassifolium*, L. (*Spreng. l. c.*) ♃. Italy. Introduced in 1825. Fl.?
5. *intermedium*, Griff. MSS. ♃. Serampore. Fl. small, white? R. S.; fr. C. S.

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* *Sagittaria natans*, Michx. S. Carolina.—*S. lancifolia*, L.; B. M. 43, t. 1792. Jamaica. Cuba.—*S. angustifolia*, Lindl.; B. Reg. 14, t. 1141. Essequebo.—*S. acutifolia*, L. Surinam.—*S. sinensis*, Sims; B. M. 39, t. 1631. China.—*Alisma cordifolium*, L. S. America.—*A. Berterii*, Spreng. Guadeloupe.—*A. pubescens*, H. Buch. Nathpur.—*Actinocarpus minor*, R. Br. Port Jackson.—*A. Damasonium*, R. Br. (Alisma Damasonium, L.; E. B. 23, t. 1615.) England. France. Italy. N. Africa.

ORDER CCXLVII.—JUNCACEÆ, Agardh. Lindl. Nat. Syst. p. 356.

THE RUSH TRIBE.

Herbs, by Lindl. (adding Prionium, Susum and Narthecium) referred to 14 genera. Of these Spreng. syst. enumerates 46 species for Europe; 37 for New Holland; 18 for S. America; 18 for N. America; 3 for Siberia; 3 for N. Africa; 2 for the Straits of Magellan; 2 for the Canaries; 1 for Terra del Fuego, and, adds Lindl. 2 for Melville Island. In S. Africa have been discovered 10 species (*Harvey*); and in the E. Indies 18; viz. 13 of *Juncus*, (Himalayas, 1 from Delhi, 1 from Hazaribagh, several European); 1 of *Luzula*, (Kunawur, Europe, Caucasus, Altai); 3 of *Flagllearia*, (Moluccas, Cochin China, Ceylon, both Peninsulus of India, Bengal, Java; one also a native of New Holland); and 1 of *Susum* (Java.) "Only employed for mechanical purposes, as the Rush, and others, for making the bottoms of chairs, &c. the pith of the same for the wick of common candles. Juncus effusus is cultivated in Japan for making floor-mats. (*Thunb.*) The leaves of Flagellaria are said to be astringent and vulnerary." (*Lindl.*)

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* *Juncus inflexus*, L. ♃. Wet places of S. Europe.—*J. vaginatus*, R. Br. ♃. Port Jackson.—*J. multiflorus*, Desf. ♃. S. Europe. N. Africa.—*J. capitatus*, Wey. ⊙ Europe.—*J. pygmæus*, Thuill. ⊙ Spain.—*J. cyperoïdes*, Laharpe. ⊙ S. America.—*J. bufonius*, L.; E. B. 12, t. 802. ⊙ Europe. Delhi.—*J. Tenageja*, Ehrh. ⊙ Swamps of Italy.—*J. indicus*, Hazaribagh.—*Prionium serratum*, E. Mey. ♃. C. G. H.—*Narthecium ossifragum*, Huds.; E. B. 8, t. 535. ♃. Turfy places of Europe.

Genera allied to Juncaceæ;—*Endl. gen. pl.* 1, *p.* 131.

Flagellaria, L. (*Spreng. syst.* 2, *p.* 15, *No.* 1375;—*R. Br. pr. p.* 264;—*Endl. l. c.*)

1. *indica*, L. (*Spreng.* 2, *p.* 149;—*Schult.* 8, *p.* 1492;—*R. Br. l. c.*;—*Gärtn. fr.* 1, *p.* 61, *t.* 16, *f.* 9;—*Red. lil. t.* 257;—*Roxb. fl. ind.* 2, *p.* 154;—*J. Grah. Cat. B. pl. p.* 230;—*Rheed.* 7, *t.* 53;—*Rumph.* 5, *t.* 29, *f.* 1.) বন চাঁদড় *Bun-chandur*. ♄ ◡ Tropical New Holland. Moluccas. Cochin China. Ceylon. Both Peninsulas of India. Bengal, (Serampore.) Silhet. Fl. small, white, R. S.; fr. C. S.

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* *Flagellaria minor*, Bl. ♄ ◡ Java.—*Susum anthelminthicum*, Bl. ♃. Swampy places of Java.—*Xerotes arenaria*, R. Br. ♃. Tropical N. Holland.—*X. distans*, R. Br. Tropical N. Holland.—*X. media*, R. Br. ♃. Tropical N. Holland.—*X. decomposita*, R. Br. ♃. Tropical N. Holland.

ORDER CCXLVIII.—PHILYDRACEÆ, Lindl. Nat. Syst. p. 357.

Herbs, natives of marshes or other wet places, belonging to 1 genus, and 2 species, both belonging to New Holland, and 1 of them also to China and Cochin China. "Properties unknown." (*Lindl.*)

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* *Philydrum lanuginosum*, Banks. (Garciana cochin-chinensis, Lour.) Tropical New Holland. S. China. Cochin China.

ORDER CCXLIX.—PANDANACEÆ, Lindl. Nat. Syst. p. 361.

(Pandaneæ, Endl. gen. pl. p. 242.)

Palm-like plants, by Lindl. referred to 2 genera. Of these, Spreng. syst. enumerates 8 species for the Mascarenhas Islands; 2-3 for Madagascar; 2 for New Holland; and 1 for Guinea. In the E. Indies have been found 12 species of *Pandanus*, and 4 of *Freycinetia*. The American species of this order, alluded to by Humb. in Lindl. l. c. p. 362, are unknown to us.

"The seeds of Pandanus are eatable. The fruit of several is also an article of food. The leaves are used for thatching and cordage. The immature fruit is reputed emmenagogue. *Humb.*" (*Lindl.*)

PANDANUS, L. fil. (*Spreng.* 3, *p.* 892, *No.* 3158;—*R. Br. pr. p.* 341;—*Endl. gen. pl.* 1, *p.* 242.)

1. *odoratissimus*, L. fil. (*Spreng. syst.* 3, *p.* 897;—*Roxb. Corom.* 1, *t.* 94, 95, 96; *fl. ind.* 3, *p.* 738, excl. syn. As. res.—*Lour. cochinch.* 2, *p.* 603;—*Rheed.* 2, *t.* 8;—*J. Grah. Cat. B. pl. p,* 227. —Athrodactylis spinosa, *Forst. gen. No.* 75;—*Rheed.* 2, *t.* 1-5; —*Rumph.* 4, *t.* 74.) কেয়া *Kea.* ♄ Native place uncertain. Cultivated over all the warmer parts of Asia. Fl. small, delightfully fragrant, R. S.; fr. C. S. The fusiform, tough, fibrous *roots* are used by basket-makers to tie their work with, and on account of their softness, by the natives, as corks, (*Roxb.*) Matting and package bags are made of them at the Mauritius. Avenues are formed of the shrubs themselves in China, Cochin China and Mauritius, and in the two former countries elephants are fed on them. (*Lour. Hardw.*) The lower yellow pulpy part of the drupe, is sometimes eaten by the natives during times of scarcity and famine, the same is the case with the white base of the leaves, which is consumed raw or boiled. (*Roxb.*)
2. *moschatus*, Rumph. (*Amb.* 4, *p.* 147, *cap.* 85;—P. lævis, *Lam.*;—*Spreng.* 3, *p.* 398.—P. inermis, *Roxb. fl. ind.* 3, *p.* 744.) ♄ Moluccas. Cochin China. Introduced into H. C. G. in 1810, but had not fl. in 1814.

3. *Leram*, Jones. (P. Millore, *Roxb. H. B. p.* 71.) *Nicobar Bread-fruit.* (As. Res. 3, p. 161.) ♄ Nicobar Islands. Introduced into H. C. G., before 1814. Fl.?
4. *foetidus*, Roxb. (*fl. ind.* 3, *p.* 742.) কেয়া কাঁটা *Kea-Kanta.* ♄ Bengal, (Calcutta, Serampore.) Fl. small, almost as offensive as those of Sterculia foetida, L.; C. S.; fr. R. S. Only employed for hedges. (*Roxb.*)
5. *furcatus*, Roxb. (*fl. ind.* 3, *p.* 744;—*Spreng. syst.* 3, *p.* 898. excl. syn. Rheed. 2, t. 8.) ♄ Pegu. Chittagong. Malabar, &c. Introduced into H. C. G. in 1811. Had not fl. in 1814.
6. *marginatus*, Roxb. (*H. B. p.* 71.) ♄ Mauritius. Introduced in H. C. G. in 1811. Had not fl. in 1814.
7. *utilis*, Bory. (*Willd. enum. Diebr. Lexi. Nachtrag*, 5, *p.* 503.—*Spr. syst.* 3, *p.* 897.—P. nudus. *Pet. Th.*—P. odoratissimus, *Jack.* not *L.*) Amboyna. Cochin China. Bourbon. Mauritius.
8. *amaryllifolius*, Roxb. (*fl. ind.* 3, *p.* 743.) ♄ Amboyna. Introduced into H. C. G. in 1798, but had not fl. in 1814. In the Serampore garden it has been cultivated for about 30 years, without fl.
9. *Candelabrum?* Pal. Beauv. (*fl. Owar. and Benin.* 1, *p.* 37, *t.* 21, and 22.—*Spr. p.* 898,) Guinea. Royal. Bot. Gard. Ceylon.
10. *edulis*, Pet. Th. (*Spreng. syst.* 8, *p.* 898.) ♄ Madagascar. Fl. small, R. S.; fr. C. S.
11. *drupaceus*, Pet. Th. (*Poir. cycl. suppl.* 1, *p.* 576, *Spr.* 898.)—Mauritius ♀ fl. May 1840, fr. Sept. to Oct.

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* *Pandanus utilis*, Bory. Madagascar.—*P. fascicularis*, Lam. Moluccas.—*P. caricosus*, Rumph. Moluccas.—*P. spiralis*, R. Br. Tropical New Holland.—*P. pedunculatus*, R. Br. Tropical N. Holland.—*P. palustris*, Pet. Th. Mascarenhas Islands.—*P. elegans*, Pet. Th. Mascaranhas Islands.—*P. humilis*, Rumph. Moluccas.

ORDER CCL.—CYCLANTHACEÆ, Lindl. Nat. Syst. p. 362.

Palm-like plants, by Lindl. referred to 3 genera with 11 species, all natives of S. America and the W. Indies. "Buttons are turned from the hard albumen of Phytelephas, or the Tagua plant. *Humb.*" (*Lindl.*)

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* *Carludovica latifolia*, Ruiz. and Pav.; B. Cab. t. 1068. (Ludovia latifolia, Pers; B. M. 56, t. 2950, 51.) ♄ Peru.—*C. palmæfolia*, Endl. St. Domingo.—*Cyclanthus bipartitus*, Poit. Guiana.—*C. Plumieri*, Poit. Martinico.

Genus allied to Pandanaceæ, which according to Endl. embrace the last-mentioned order.

NIPA, Thunb. (*Spreng. syst.* 3, *p.* 757;—*Endl. gen. pl.* 1, *p.* 244.) Contains only one species, viz:—

1. *fruticans*, Thunb. (*Act. holm.* 1782, *p.* 231;—*Spreng. syst.* 3, *p.* 772;—*Lam. ill.* 3, *t.* 897;—*Labill. in mem. mus.* 5, *p.* 297, *t.* 21, 22;—*Roxb. fl. ind.* 3, *p.* 650.—Nypa, *Rumph.* 1, *t.* 16.—Cocos Nypa, *Lour.*) গুলগা *Goolga.* ♄ Moluccas. Cochin China. Soonderbuns, &c. Introduced into H. C. G. in 1810. Fl.?

ORDER CCLI.—ARACEÆ, Schott.

(Aroideæ, Juss.;—Endl. gen. pl. p. 232.)

THE ARUM TRIBE.

Herbaceous plants, frequently with a fleshy cormus, or shrubs; stemless or arborescent, or climbing by means of aërial roots," (*Lindl.*) referred by Endl. to 38 genera. Of these, Spreng. syst. enumerates 42 species for S. America, Mexico and the W. Indies; 11 for Europe? 6 for N. America; 4 for N. Holland; 1 for Siberia; 1 for China; 3 for Japan; 1 for S. Africa; 1 for Guinea; 1 for N. Africa; 1 for Syria; and 1 for Tauria, and Caucasus. The Indian species, described by Roxb., amount to 48. Of additional species Wallich's several publications enumerate about 16, Royles ill. 3, and J. Graham's. Cat. B. pl. p. 4, in all 71; viz. 1 of *Pistia;* 1 of *Ambrosinia;* 3 of *Cryptocoryne;* 4 of *Arisæma;* 1 of *Sauromatum;* 5 of *Typhonium;* 4 of *Pythonium;* 1 of *Amorphophallus;* 1 of *Remusatia;* 9 of *Colocasia;* 1 of *Aglaonama* (Arum. Lk.); 3 of *Homalonema* (one of these Calla occulta, Lour.); 13 of *Scindapsus;* 1 of *Pothos;* 2 of *Lasia;* 1 of *Dracontium;* and 2 of *Acorus.* The remaining 22 species we have not been able to adapt to Endl. and Schott's Araceous synopsis, partly from want of specimens, and partly from the inaccuracy of the descriptions. Acridity prevails in most species of the order, and is in some American ones so concentrated as to make them dangerous poisons. As, however, this principle is abstracted by cooking, drying, washing with water, and even by long cultivation, the fecula redundant in many of their under-ground stems remains, and may be rendered available as an article of diet. This is the case with a great many of our Indian Arums, well known under the common name of *Kuchoo.*

A. ARËÆ, (Araceæ, *Endl. gen. pl. p.* 233.)

a. Pistëinæ. (Pistiaceæ, *Endl. l. c.*)

PISTIA, L. (*Spreng. syst.* 3, *p.* 757, *No.* 3063;—*Endl. l. c.*)

1. *Stratiotes*, L. (*Spreng. syst.* 3, *p.* 772;—*Jacq. amer. p.* 234, *t.* 148; *ed. pict. t.* 225;—*Roxb. fl. ind.* 3, *p.* 131;—*J. Grah. Cat. B. pl. p.* 200.—Tala indica, *Lour.*;—*Rheed.* 11, *t.* 32;—*Rumph.* 6, *t.* 74.) টাকাপানা

Takapana. ⊙ Swimming on pools of stagnant water in the Moluccas, Cochin China, Sunda Islands, Ceylon, both Peninsulas of India, Bengal. Fl. small, pale-yellow, H. and R. S.; fr. R. and C. S. (Serampore,) &c. extending as far as Saharunpore. Tropical America. In Jamaica, in hot dry weather it impregnates the water with its acrid particles to such a degree, as to give rise to the bloody flux. (*Browne. hist. of Jam.* 330.) Cut into small pieces and mixed with rice, it is given to sucklings, who greedily devour this mixture. The leaves are almost tasteless, but their acridity soon attacks the mouth and lips as much as in Arum. (*Rumph.*) The natives make them into a poultice for the piles. (*Ainslie.*)

AMBROSINIA, Bassi. (*Spreng. syst.* 3, *p.* 757, *No.* 3062;—*Endl. gen. pl.* 1, *p.* 233.)

1. *Roxburghiana*, (A. unilocularis, *Roxb. fl. ind.* 3, *p.* 493.) ♃. Coromandel. Has been introduced into H. C. G.?

b. Cryptocorynæ, (Cryptocorynëæ, *Bl.*; *Endl. gen. pl.* 1, *p.* 234.)

CRYPTOCORYNE, Fisch. (*from Wydler in Linnæa*, 5, *p.* 428;—*Endl. l. c.*)

1. *ciliata*, Schott. and Endl. (Ambrosinia ciliata, *Roxb. Corom.* 3, *t.* 262; *fl. ind.* 3, *p.* 491;—*Spreng. syst.* 3, *p.* 771.) কেরালী *Keralee*. ♃. Banks of rivulets, ponds, and wet places in Bengal, (Serampore.) Fl. minute, and fr. R. S. (*Roxb.*)
2. *spiralis*, Schott. and Endl. (Ambrosinia spiralis, *Roxb. fl. ind.* 3, *p.* 492.—Arum spirale, *Retz.*;—*Spreng. syst.* 3, *p.* 768;—*B. M.* 48, *t.* 2220;—*J. Grah. Cat. B. pl. p.* 228.) ♃. Moist, shady banks of ponds or standing sweet water, or rivers of the coast of Coromandel, of the Deccan, and the Concans. Fl. minute, and fr. R. S. (*Roxb.*)
3. *retrospiralis*, (Ambrosinia retrospiralis, *Roxb. fl. ind.* 3, *p.* 492.) ♃. N. Bengal in moist places. Fl. minute, R. S. (*Roxb.*)

c. Dracunculinæ, Endl. and Schott. *Endl. gen. pl.* 1, *p.* 234.

ARISÆMA, Mart. (*Endl. l. c.*)

1. *triphyllum*, Endl. (Arum triphyllum, *L.*;—*Spreng. syst.* 3, *p.* 769, excl. syn;—*B. M.* 24, *t.* 950, *a.*) ♃. N. America, from Canada to Carolina. Introduced in 1825. Fl.? The milk in which the acrid root has been boiled, is said to have cured consumption. (*DC.*)
2. *Dracontium*, Endl. (Arum Dracontium, *L.*;—*Spreng. l. c.*;—*B. Reg.* 8, *t.* 668.) ♃. N. America. Introduced in 1825. Fl.?

TYPHONIUM, Schott. (*Endl. gen. pl.* 1, *p* 235.)

1. *flagelliforme*, (Arum flagelliforme, *Roxb. fl. ind.* 3, *p.* 502.) ঘাস কচু *Ghas-kuchoo*. ♃. Bengal, (Serampore.) Fl. minute, R. S.

? 2. *divaricatum*, (Arum divaricatum, *L.*;—*Spreng. syst.* 3, *p.* 768;—*Roxb. fl. ind.* 3, *p.* 503;—*J. Grah. Cat. B. pl. p.* 228;—*Rheed.* 11, *t.* 20.) ♃. China. Coromandel Coast. The Concans. Bengal, (Serampore.) Fl. small, R. S.

3. *orixense*, Schott. (Arum orixense, *Roxb. fl. ind.* 3, *p.* 503;—*R. Br. pr. p.* 336;—*Spreng. syst.* 3, *p.* 769;—*B. Reg.* 6, *t.* 450;—*B. Repos.* 5, *t.* 356.—A. trilobatum, *Lour.* not L.) ঘেট কচু *Ghet-kuchoo.* ♃. New Holland. Cochin China. Both Peninsulas of India. Ceylon. Bengal, (Serampore,) &c. Fl. minute, R. S. the roots are exceedingly acrid, and used by the natives in poultices. (*Roxb.*)

4. *trilobatum*, Schott. (Arum trilobatum, *L.*;—*Spreng. l. c.*;—*Roxb. fl. ind.* 3, *p.* 505;—*B. M.* 10, *t.* 339, not Lour.—*Rumph.* 5, *t.* 110, *f.* 2.) ♃. Moluccas. Fl. minute, R. S.

? 5. *sylvaticum*, (Arum sylvaticum, *Roxb. fl. ind.* 3, *p.* 511.) ♃. Circars. Fl. minute, R. S.

PYTHONIUM, Schott. (*Endl. gen. pl.* 1, *p.* 236.)

1. *bulbiferum*, Schott. (Arum bulbiferum, *Roxb. fl. ind.* 3, *p.* 510;—*B. M.* 46, *t.* 2072, and 51, *t.* 2508;—*Spreng. syst.* 3, *p.* 770;—*J. Grah. Cat. B. pl. p.* 229.) অম্বল বেল *Umblo-bela.* ♃. Peninsula of India. Bengal, (Serampore.) Fl. small, May.

2. *nepalense*, Schott. (Thomsonia nepalensis, *Wall. pl. as. rar.* 1, *t.* 99.) ♃. Nepal. Has been introduced into H. C. G. Fl.?

AMORPHOPHALLUS, Bl. (*in diar. batav.* (1825.)—*Endl. gen. pl.* 1, *p.* 236.)

1. *campanulatus*, (Arum campanulatum, *Roxb. H. B. p.* 65;—*Corom.* 3, *t.* 272; *fl. ind.* 3, *p.* 509;—*Spreng. syst.* 3, *p.* 770;—*B. M.* 55, *t.* 2812;—*J. Grah. Cat. B. pl. p.* 228.—Arum Rumphii, *Gaudich.*—Arum zeylanicum, *Commel. hort. v.* 1, *p.* 101, *t.* 53.—Candarum Roxburghii, *Schott.*—*Rheed.* 11, *t.* 18, 19;—*Rumph.* 5, *t.* 112, 113, *f.* 2.) ওল *Ol.* Moluccas. Ceylon. Both Peninsulas of India. Bengal, (Calcutta, Serampore,) &c. Fl. minute, June. This species, which deserves to be called the *Telinga Potatoe*, is much cultivated in the N. Circars and about Surat, and highly esteemed for the wholesomeness and nourishing quality of the roots. A very rich soil, repeatedly ploughed, suits it best. The small tuberosities found in the large roots are employed for sets, and planted in the manner of potatoes. In twelve months they are reckoned fit to be taken up for use; the larger roots will then weigh from 4—8 or more pounds, and keep well if preserved dry. The natives employ them for food in the manner of the common yam. (*Roxb.*) In the Kainah Zilla, it is planted in May, and yields from 100—250 maunds per beegah. It sells for about a Rupee per maund. (*Kirkland.*)

d. Caladieæ, Schott. *Endl. gen. pl.* 1, *p.* 236.

REMUSATIA, Schott. (*Endl. l. c.*)

1. *vivipara*, Schott. (Arum viviparum, *Roxb. fl. ind.* 3, *p.* 496;—*J. Grah. Cat. B. pl. p.* 228.—Caladium viviparum, *Nees.*—*Rheed.* 12, *t.* 9.) ♃. Both Concans. Mussooree. Nepal. Fl. R. S.

COLOCASIA. Ray. (*Endl. gen. pl.* 1, *p.* 236.)

1. *antiquorum*, Schott. (*Eucolocasia.*—Arum Colocasia, *L.*; *Spreng. syst.* 3, *p.* 769;—*Roxb. fl. ind.* 3, *p.* 494;—*J. Grah. Cat. B. pl. p.*

228.—A. ægypticum, *Rumph.* 5, *t.* 109.) কচু *Kuchoo.* ♃. Greece. Asia Minor. Syria. E. Indies. Fl. R. S.

α. গুড়ি কচু *Goori-kuchoo.*

β. আশু কচু *Ashoo-kuchoo.*

These two varieties are cultivated in Lower Bengal, about Calcutta, Serampore, &c. Small offsets from the larger tubers are, like potatoes, planted about the beginning of the rains, in May and June, in a well laboured, friable, rich soil, not subject to inundations. The roots of *α.* are taken up in Feb. and March; those of *β.* about the close of the year. (*Roxb.*)

γ. কাল কচু *Kalo-kuchoo.* (*Rumph.* 5, *t.* 110, *f.* 1.) Leaves and petioles more or less purple-tinged. The roots never swell in the manner of the cultivated varieties, but send out numerous runners, The leaves and petioles are eaten by the natives. (*Roxb.*)

δ. চাড় কচু *Char-kuchoo.* Disk of the leaves marked with dark-purple or bluish clouds, not cultivated. (*Roxb.*)

ε. বন কচু *Bun-kuchoo.* Leaves uniformly green. Not cultivated, and like *δ.* seldom eaten by the natives. (*Roxb.*)

2. *nymphœæfolia,* Royle. (*Eucolocasia.*—Arum nymphæifolium, *Roxb. fl. ind.* 3, *p.* 495;—*J. Grah. Cat. B. pl. p.* 228.—Caladium nymphæifolium, *Vent.*—*Spreng. syst.* 3, *p.* 771;—*Rheed.* 11, *t.* 22.) সার কচু *Sar-kuchoo.* ♃. Both Concans. Bengal, (Serampore,) &c. Fl. R. S.

3. *esculenta,* Schott. (*Eucolocasia.*—Arum esculentum, *L.*;—*Spreng.* 3, *p.* 771.—Calla calyptrata, *Roxb. fl. ind.* 3, *p.* 514.—Arisarum esculentum, *Rumph.* 5, *t.* 111, *f.* 1.) ♃. Jamaica. Brazil. Amboyna. Fl. May.

4. *indica,* (*Alocasia.*—Arum indicum, *Lour.*;—*Roxb. fl. ind.* 3, *p.* 498.) মান কচু *Man-kuchoo.* ♃. Various parts of India. In Bengal it is cultivated about the huts of the natives for its esculent stems and small pendulous tubers, these being very generally eaten by people of all ranks in curries, &c. (*Roxb.*) Fl. Sept. Oct. and Nov.

β. মান গিড়ি *Man-giri.* Petioles darker-coloured. This as well as *α* seldom produce ripe seeds.

? 5. *odora,* (Arum odorum, *Roxb. fl. ind.* 3, *p.* 499;—*B. Reg.* 8, *t.* 641.—Caladium odoratum, *Spreng. syst.* 3, *p.* 770.) ♃. Pegu. Fl. very fragrant, Oct. to January; fr. March and April.

6. *fornicata,* (Arum fornicatum, *Roxb. fl. ind.* 3, *p.* 501.) সালা কচু *Salo-kuchoo.* ♃. Bengal, (Serampore.) Chittagong, &c. Fl. R. S.

7. *cucullata,* Schott. (Arum cucullatum, *Lour.*;—*Roxb. fl. ind.* 3, *p.* 501.—Caladium cucullatum, *Pers.*;—*Spreng. syst.* 3, *p.* 770.) বিষমান *Bishman.* ♃. Bengal, (Serampore.) Fl. R. S.

HOMALONEMA, Schott. (*Endl. gen. pl.* 1, *p.* 236.)

1. *aromaticum,* Schott. (Calla aromatica, *Roxb. fl. ind.* 3, *p.* 513.—Zantedeschia aromatica, *Spreng. syst.* 3, *p.* 765.) ♃. Chittagong. Fl. C. S.

When cut, it diffuses a pleasant aromatic scent. The medicinal virtues of the root are in high estimation amongst the natives. (*Roxb.*)

? 2. *rubescens*, (Calla rubescens, *Roxb. fl. ind.* 3, *p.* 515;—Dracunculus amboinicus, *Rumph.* 5, *t.* 111, *f.* 2.) ♃. Amboyna. Chittagong. Fl. August.

Richardia, Kth. (*Endl. gen. pl.* 1, *p.* 238.)

1. *æthiopica*, Kth. (Calla æthiopica, *L.*;—*B. M.* 21, *t.* 832;—*Roxb. H. B. p.* 64.—Zantedeschia æthiopica, *Spreng. syst.* 3, *p.* 765.) ♃. Fl. C. S.

B. Calleæ.

(Callaceæ, *Endl. gen. pl.* 1, *p.* 239.)

e. Callinæ, (Calleæ, *Endl. l. c.*)

Calla. L. (*Endl. l. c.*)

1. *palustris*, L. (*Spreng. syst.* 3, *p.* 765;—*Fl. Dan. t.* 422;—*B. M.* 43, *t.* 1831.) ♃. Swampy places of Europe. Introduced in 1822. Fl.?

Scindapsus, Schott. (*Endl. gen. pl.* 1, *p.* 239.)

1. *officinalis*, Schott. (Pothos officinalis, *Roxb. fl. ind.* 1, *p.* 431; *ed. Carey*, 1, *p.* 452;—*Spreng.* 3, *p.* 766.) গজ পিপ্পল *Guj-pippul.* ♃. Paras. Bengal, (Midnapore, Serampore.) Calicut. Cochin China. On Chappedong. Moulmein. Rangoon. Monghir Mountains. Fl. R. S.; fr. January. At Midnapore it is cultivated for its fruit, which cut into transverse pieces and dried, is an article of some importance in the Hindoo Materia Medica.

2. *Peepla*, Endl. (Pothos Peepla, *Roxb. fl. ind.* 1, *p.* 433; *ed. Carey*, 1, *p.* 454.) ♃. Silhet. Fl. April and May.

3. *giganteus*, Schott. (Pothos giganteus, *Roxb. fl. ind.* 1, *p.* 434; *ed. Carey*, 1, *p.* 455.) ♃. Singapore. Penang. Fl. Oct.; fr. 0.

4. *pertusus*, Schott. (Pothos pertusus, (*Roxb. fl. ind.* 1, *p.* 434; *ed. Carey*, 1, *p.* 455;—*J. Grah. Cat. B. pl. p.* 230;—*Rheed.* 12, *t.* 21, 22.) ♃. ◡ Coromandel. S. Concans. Has not fl. here.

5. *pinnatus*, Schott. (Pothos pinnatus, *L.*;—*Spreng.* 3, *p.* 767;—*Roxb. fl. ind.* 1, *p.* 435; *ed. Carey*, 1, *p.* 456;—*Rumph.* 5, *t.* 183, *f.* 2.) ♃. Forests of the Malay countries. In H. C. G.?

6. *decursivus*, Schott. (Pothos decursivus, *Roxb. fl. ind.* 1, *p.* 436; *ed. Carey*, 1, *p.* 456;—*Wall. pl. as. rar.* 2, *t.* 192.) ♃ Silhet. Fl. April and May; fr. R. S.

? 7. *caudatus*, (Pothos caudatus, *Roxb. fl. ind.* 1, *p.* 436.) ♃. Penang. Introduced into H. C. G. in 1798, but had not fl. up to 1814.

? 8. *pinnatifidus*, (Pothos pinnatifidus, *Roxb. fl. ind.* 1, *p.* 437.) ♃. Introduced into H. C. G. Fl.?

9. *glaucus*, Schott. (Pothos glaucus, *Wall. pl. as. rar.* 2, *t.* 156.) ♃. Paras. Nepal. Khassya Mountains. Has not fl. here.

f. Orontiëæ,

(Orontiaceæ, *Endl. gen. pl.* 1, *p.* 239.)

a. Pothoïnæ, Schott. (Endl. l. c.)

POTHOS, L. (*Endl. l. c.*)

1. *scandens,* L. (*Spreng. syst.* 3, *p.* 767;—*Roxb. fl. ind.* 1, *p.* 430; *ed. Carey,* 1, *p.* 451;—*J. Grah. Cat. B. pl. p.* 229;—*B. Reg.* 16, *t.* 1337;—*Rheed.* 7, *t.* 40;—*Rumph.* 5, *t.* 184, *f.* 2.) ♃. Paras. Cochin China. Moluccas. Sunda Islands. Ceylon. Both Peninsulas of India. Bengal. Nepal. Fl. April and May; fr. R. S.

LASIA, Lour. (*Endl. gen. pl.* 1, *p.* 239.)

1. *Loureiri,* Schott. (L. aculeata, *Lour.*—Pothos Lasia, *Roxb. fl. ind.* 1, *p.* 438; *ed. Carey,* 1, *p.* 458;—*Spreng. syst.* 3, *p.* 767.) কাঁটা কচু *Kanta-kuchoo.* ♃. Cochin China. Penang. Singapore. Bengal, (Serampore.) Silhet. Fl. C. S.; fr. H. S.

2. *heterophylla,* Schott. (Pothos heterophyllus, *Roxb. fl. ind.* 1, *p.* 437; *ed. Carey,* 1, *p.* 457;—*Spreng. syst.* 3, *p.* 767.) কাঁটা মান *Kanta-man.* ♃. Bengal, (Serampore.) C. S., but rare.

β. *Dracontinæ.* (Dracontiëæ, Schott.—*Endl. gen. pl.* 1, *p.* 240.)

DRACONTIUM, L. (*Endl. l. c*)

1. *polyphyllum,* L. (*Spreng. syst.* 3, *p.* 766;—*R. Br. pr. p.* 337;—*B. Reg.* 9, *t.* 700;—*J. Grah. Cat. B. pl. p.* 229, excl. syn. Rheed. and Rumph.) ♃. Tropical N. Holland. S. America. Malabar Hill, Bombay. The Concans. Introduced in 1825. Fl.? The prepared *root* is supposed by the natives to possess antispasmodic virtues, and is considered a valuable remedy in asthma. It is also used in hemorrhoids. (*Ainslie.*)

γ. *Orontinæ,* (Orontieæ, Schott.;—*Endl. gen. pl.* 1, *p.* 240.)

ORONTIUM, L. (*Spreng. syst.* 2, *p.* 10, *No.* 1290;—*Endl. l. c.*)

1. *aquaticum,* L. (*Spreng. o. c. p.* 118;—*Schult. syst.* 7, *p.* 171;—*Lam. ill. t.* 252, *f.* 2;—*Hook. exot. fl. t.* 19;—*B. Cab. t.* 402.) ♃. Swampy places in N. America from Canada to Carolina. Introduced in 1822. Fl.? Acrid, but eatable by roasting. (*Lindl.*)

g. Acorëæ, (Acoroidëæ, Schott.;—*Endl. gen. pl.* 1, *p.* 240.)

Acoraceæ, *Lindl. Nat.*

Syst. p. 365, excl. Tupistra and Aspidistra.)

ACORUS, L, (*Spreng. syst.* 2, *p.* 10, *No.* 1293;—*Endl. l. c.*)

1. *Calamus,* L. (*Spreng. o. c. p.* 118;—*Gärtn. fr.* 2, *p.* 27, *t.* 84, *f.* 10;—*Schult. syst.* 7, *p.* 173;—*E. B.* 5, *t.* 356;—*Roxb. fl. ind.* 2, *p.* 169;—*J. Grah. Cat. B. pl. p.* 230, excl. syn. Rumph.—A. odoratus, *Lam.*, —*Rheed.* 11, *t.* 60?) শ্বেত বচ *Shwet-buch. Sweet Flag.* ♃. Europe. Siberia. N. America. Japan. Common in gardens. Fl. R. S. Schultes l. c. is of opinion, that Rheede's plant is widely different from that of Linneus. The latter remarks, that it is the only native aromatic plant of northern climates The root powdered might supply the place of foreign spices. It has a strong aromatic smell, and a warm, pungent,

bitterish taste. The flavour is greatly improved by drying. The Turks candy the roots, and regard them as a preservative against contagion. In many counties in England, in which the plant abounds, it was formerly used to strew the floors of houses instead of rushes; a purpose for which its fragrant leaves made it very suitable. The aromatic principle is an essential oil, which can be obtained by distillation. The root has been employed in medicine since the time of Hippocrates. By the moderns it is successfully used in the intermittent fevers, even after bark has failed, and is certainly a very useful addition to Cinchona. It is also a useful adjunct to bitter, and stomachic infusions. Thomson (*Mat. Med.* 134) says, it is too seldom prescribed. (*Lond. enc. p.* 257.)

2. *gramineus*, Ait. (*Spreng. l. c.*;—*Schult. o. c. p.* 174;—*Sm. spicil. p.* 15, *t.* 17.) 4. Cultivated in China. Has been cultivated here for more than 14 years, without fl.
3. *terrestris*, Spreng. (syst. 2, *p.* 118.—Acorum terrestre, *Rumph.* 5, 178, *t.* 72.

ARUM, Roxb. (*fl. ind.* 3, *p.* 494.)

1. *rapiforme*, Roxb. (*o. c. p.* 497.) 4. Pegu. Introduced in 1809, into H. C. G. where it fl. R. S. (*Roxb.*)
2. *montanum*, Roxb. (*l. c.*) 4. Mountainous forests of N. Circars, where its root is said to be employed to poison tigers. Introduced in 1808, into H. C. G. where it fl. R. S. (*Roxb.*)
3. *gracile*, Roxb. (*o. c. p.* 505;—*J. Grah. Cat. B. pl. p.* 228, excl. syn. Rumph.—*Rheed.* 11, *t.* 21.) 4. Silhet. Introduced in 1811, into H. C. G. where it fl. H. and R. S. (*Roxb.*)
4. *cuspidatum*, Roxb. (*o. c. p.* 506.) 4. Penang. Introduced in 1802, into H. C. G. where it fl. R. S. (*Roxb.*)
5. *curvatum*, Roxb. (*l. c.*) 4. Nepal. Introduced in 1804, into H. C. G. where it fl. R. S. (*Roxb.*)
6. *sessiliflorum*, Roxb. (*o. c. p.* 507.) 4. Cawnpore. Introduced in 1802, into H. C. G. where it fl. H. S. (*Roxb.*)
7. *lyratum*, Roxb. (*o. c. p.* 508.) 4. Circar Mountains. Has been introduced into H. C. G.? The roots are eaten by the natives of the Mountains, but require two or three boilings and some particular care in the dressing to render them inoffensive, and nourishing. (*Roxb.*)
8. *margaritiferum*, Roxb. (*o. c. p.* 512.) 4. Hindoosthan. Introduced into H. C. G. before 1814, where it fl. May and June. (*Roxb.*)

CALLA, Roxb. (*fl. ind.* 3, *p.* 513.)

1. *oblongifolia*, Roxb. (*o. c. p.* 516;—*Rumph.* 5, *t.* 108.) 4. Moluccas. Introduced in 1798, into H. C. G. where it fl. R. S. (*Roxb.*)
2. *picta*, Roxb. (*l. c.*) 4. Sumatra. Introduced into H. C. G. before 1814, and fl. there about the close of the R. S. (*Roxb.*)
3. *virosa*, Roxb. (*o. c. p.* 517.) 4. Chittagong. Introduced in 1810, into H. C. G. where it fl. Sept. and Oct. (*Roxb.*)

POTHOS, Roxb. (*fl. ind.* 1, *p.* 430.)

1. *tener*, Wall. (*Roxb. fl. ind.*; *ed. Carey*, 1, *p.* 454, *annot*;—*Spreng. syst.* *p.* 767.—P. gracilis, *Roxb. fl. ind.* 1, *p.* 433, not Rudge.—*Rumph.* 5, *t.* 181, *f.* 2?) ♃ ⌣ Amboyna. Has been introduced into H. C. G.?

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* *Arisarum vulgare*, Kth. ♃ S. Europe. N. Africa.—*Arisæma multicarinatum*, Schott. (Arum multicarinatum, Wall.) ♃. Nepal.—*A. tortuosum*, Schott. (Arum tortuosum, Wall. pl. as. rar. 2, t. 114.) ♃. Nepal.—*A. erubescens*, Schott. (Arum erubescens, Wall. pl. as. rar. 2, t. 135.) ♃. Nepal.—*A. echinatum*, Schott. (Arum echinatum, Wall. pl. as. rar. 2, t. 136.) ♃. Nepal.—*Biarum tenuifolium*, Schott. (Arum tenuifolium, L.; B. M. 42, t. 2282; B. Reg. 6, t. 512.) ♃. Morea. Dalmatia.—*B. gramineum*, Schott. (Arum gramineum, L.) ♃. S. Europe.—*Arum italicum*, Lam; B. M. 50, t. 2432. ♃. S. Europe.—*A. maculatum*, L. ♃. S. Europe.—*A. pictum*, L. fil. ♃. Balearic Islands.—*Sauromatum pedatum*, Schott. (Arum pedatum, Fisch.) ♃. S. America.—*S. guttatum*, Schott. (Arum guttatum, Wall. pl. as. rar. 2, t. 115.) ♃. Nepal.—*Dracunculus crinitus*, Schott. (Arum crinitum, Ait.) ♃ Balearic Islands.—*D. Arum*, Schott. (Arum Dracunculus, L.) ♃. S. Europe.—*Colocasia macrorrhiza*, Schott. (Arum macrorrhizum, L.) ♃. Ceylon.—*C. himalensis*, Royle. ♃. Himalaya.—*Caladium bicolor*, Vent; B. M. 52, t. 2543. (Arum bicolor, Ait.; B. M. 21, t. 820.) ♃. Brazil.—*Peltandra virginica*, Schott. (Arum virginicum, L.; Hook. exot. fl. t. 182.) ♃. N. America.—*Xanthosoma xanthorrhizon*, Schott. (Arum xanthorrhizon, Willd.) ♃. W. Indies?—*X. sagittæfolium*, Schott. (Caladium sagittæfolium, Vent.) ♃. W. Indies.—*Acontias helleborifolia*, Schott. (Arum helleborifolium, Jacq. ♃. W. Indies.—*Syngonium auritum*, Schott. (Arum auritum, L.) ♃. W. Indies.—*Culcasia scandens*, Beauv. (Caladium scandens, Willd.) ♃. Guinea.—*Philodendron grandifolium*, Schott. (Arum grandifolium, Jacq.; B. M. 53, t. 2643.) ♃. Caracas. Has been introduced at Bombay.—*P. pinnatifidum*, Schott. (Arum pinnatifidum, Jacq.) ♃. Caracas.—*P. tripartitum*, Schott. (Arum tripartitum, Jacq.) ♃. Caracas.—*P. crassinervium*, Lindl. B. Reg. 23, t. 1918; B. M. 64, t. 3621. ♃. S. America?—*Dieffenbachia Seguinum*, Schott. (Arum Seguinum, L.; B. M. 52, t. 2606.) ♃. W. Indies.—*Aglaonema integrifolium*, Schott. (Arum integrifolium, Lk.) ♃. Moluccas.—*Homalonema occultum*, Schott. (Calla occulta, Lour.) ♃. Cochin China.—*Monstera cannæfolia*. Schott. (Pothos cannæfolius, Curt.; B. M. 17, t. 603.) ♃. Tropical America.—*M. lingulata*, Schott. (Arum lingulatum, L.) ♃. Jamaica.—*M. Dracontium*, Schott. (Calla Dracontium, Meyer.) ♃. W. Indies.—*Anthurium macrophyllum*, Schott. (Pothos macrophyllus, Swz.; B. M. 55, t. 2801.) ♃. W. Indies.—*A. crassinervium*, Schott. (Pothos crassinervius, Jacq.; B. M. 57, t. 2987.) ♃. S. America.—*A. microphyllum*, Schott. (Pothos microphyllus, Hook.; B. M. 56, t. 2953.) ♃. Brazil.—*A. coriaceum*,

Schott. (Pothos coriaceus, Grah, ; Hook. exot. fl. t. 110.) 4. Brazil. —*A. Harrisii*, Schott. (Pothos Harrisii, Grah. ; Hook. exot. fl. t. 111.) 4. Brazil.—*A. gracile*, Lindl. ; B. Reg. 19, t. 1635, (Pothos gracilis, Rudge, not Roxb.) 4. Guiana.—*A. pentaphyllum*, Schott. (Pothos pentaphyllus, Willd. ; B. M. 34, t. 1375.) 4. S. America.—*Spathophyllum lancæfolium*, Schott. (Dracontium lanceæfolium, Jacq.) 4. Caracas.—*Symplocarpus foetidus*, Nutt. ; B. M. 60, t. 3224. (Pothos foetidus, Ait. ; B. M. 22, t. 836.) 4. N. America.—*Acorus terrestris*, Rumph. 5, t. 72, f. 1. 4. Moluccas. Cochin China.—*Ariopsis peltata*, Nimmo. 4. Bombay.

ORDER CCLII.—LEMNACEÆ, Schleiden,

Comp. gen. and sp. in Mag. Nat. Hist. vol. 6, p. 259.
Endl. gen. pl. 1, p. 232.

THE DUCK-WEED TRIBE.

Minute floating plants, 5 inhabiting Europe, America, and Van Dieman's Land, and 5 discovered in India, viz. :—

LEMNA, L. (*Spreng. syst.* 2, *p.* 28, *No.* 125 ;—*R. Br. pr.* 1, *p.* 345 ;—*Endl. gen. pl.* 1, *p.* 232.) *Duck-weed.*

1. *orbiculata*, Roxb. (*fl. ind.* 3, *p.* 565.) ⊙ Bengal. (Calcutta, Serampore,) &c. Fl. lateral, with a spathe, minute, R. and C. S.

? 2. *cruciata*, Roxb. (*o. c. p.* 566.) ⊙ Bengal, under the surface of the water in tanks, in most extensive interwoven masses. Has not been found here, and may perhaps belong to the next genus.

3. *obcordata*, Hb. Buch. ⊙ Goruckpore.

GRANTIA, Griff. (*MSS.** 1838.—*Wolfia*, Horkel. Miscel. ? Schleiden comp. gen. and sp. Lemnaceæ, in Mag. Nat. Hist. vol. 6, p. 259. ?) Named by Mr. W. Griffith, in honour of J. W. Grant, Esq., of the Bengal Civil Service, one of the best microscopical observers of the present day.

1. *microscopica*, Griff. MSS. ⊙ Calcutta. Serampore. Fl. most minute, terminal, naked, R. and C. S.

? 2. *globosa*, Griff. MSS. (Lemna globosa, *Roxb. fl. ind.* 3, *p.* 565 ;—*J. Grah. Cat. B. pl. p.* 252.) ⊙ Bengal. Serampore. Bombay. Fl. R. and C. S.

* Flos monandrus, terminalis. Spatha nulla. Anthera unilocularis. *Planta minima, claviformis inter Phanerogameas simplicissima. (Griffith.)*

ORDER CCLIII.—TYPHACEÆ, DC. Lindl. Nat. Syst. p. 365; Endl. gen. pl. 1, p. 241.

Marsh or ditch plants, generally inhabiting Europe and N. America. Of the genus *Sparganium*, one species is found in New Holland, another in India, and a third in Cashmere. The other genus *Typha*, contains 6 species, of which three are found in Europe and N. America, one of these also in Van Dieman's Land and India; two in the W. Indies and S. America; and one in India.

Typha, Tournef. (*Spreng. syst.* 3, *p.* 764, *No.* 3154;—*R. Br. pr. p.* 338;—*Endl. o. c.*) Cat's Tail.

1. *angustifolia*, L. (*Spreng. o. c. p.* 890;—*E. B.* 21, *t.* 1456;—*Roxb. fl. ind.* 3, *p.* 567;—*R. Br. l. c.*—T. minor, *Curt. fl. lond. t.* 169, not Sm.) রাম হোগলা *Ram-hogla.* ♃. Peninsula of India. Bengal, (Serampore.) N. India. Fl. R. S. *Leaves* used for making mats.
2. *elephantina*, Roxb. (*fl. ind.* 3, *p.* 566;—*J. Grah. Cat. B. pl. p.* 227.) হোগলা *Hogla. Elephant Grass.* ♃. Margins of tanks and beds of rivers throughout India. Fl. R. and C. S. Elephants are fond of this grass. (*Roxb.*) It is of great importance for binding the soil on the banks of the Indus with its long tortuous roots, of which great care is taken, when the culms are cut down to make matting of. They are also tied in bundles, and used as buoys to swim with, like *sedges* (Sparganium ramosum, Swz.) in England. (*J. Grah. l. c.*) The pollen of the flowers is abundant in this as well as in the other species, and if a light is applied to it, a flash of fire is produced.

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* *Typha minor*, Sm., (E. B. 21, t. 1457.) ♃. England. France. Germany.—*T. latifolia*, L.; E. B. 21, t. 1455. ♃. Europe.—*T. truxillensis*, Kth. ♃. Peru.—*T. domingensis*, Pers. ♃. St. Domingo.—*Sparganium ramosum*, Swz.; E. B. 11, t. 744. ♃. Europe.—*S. natans*, L.; E. B. 4, t. 273. ♃. Europe.—*S. simplex*, Swz.) E. B. 11, t. 745. ♃. Europe.—*S. stoloniferum*, Hb. Buch. ♃. Magahur.—*S. carinatum*, Falconer. ♃. Cashmere.

ORDER CCLIV.—NAJACEÆ, (NAJADACEÆ, Lindl. Nat. Syst. p. 366;—Endl. gen. pl. 1, p. 229.)

Water plants, by Lindl. (including Aponogeton ? and Spathium) referred to 16 genera. Of these, Spreng. syst. enumerates 26 species for Europe, of which several are also natives of America, Africa and Asia; 6 for S. America, Mexico and the W. Indies; 6 for N. America; 8 for N. Holland and the South Sea Islands (4 also natives of Europe,); 5 of S. Africa; 2 of Arabia; and 1 of Egypt. In the E. Indies have been found 1 species of *Caulinia*?

4 of *Najas*; 1 of *Ruppia* (Soonderbuns, Griffith,); 1 of *Zannichellia*; 13 of *Potamogeton*; 4 of *Spathium*; and — of *Epigynanthus*. Royle mentions, that Röttl. herb. contains numerous specimens of Ruppia, under the name of Zannichellia indica. Perhaps this species may be the same with that of the Soonderbuns. With the Cape species of Aponogeton we are not acquainted. "Properties unimportant. The root of Potamogeton natans is said to be eaten in Siberia. Zostera, or Sea-wrack, is a common material for packing, or for stuffing cottager's cushions." (*Lindl.*)

NAJAS, L. (*R. Br. pr. p.* 345.)

1. *dichotoma*, Roxb. (*fl. ind.* 3, *p.* 749.) ⊙ Bengal. Has been introduced into H. C. G.

? 2. *indica*, Griff. MSS. (Caulinia indica, *Willd.? Spreng. syst.* 1, *p.* 20.—Fluvialis indica, *Pers. syn.* 2, *p.* 530.) ⊙ Tranquebar. Serampore. Fl. R. S.

3. *seminuda*, Griff. MSS. ⊙ Serampore. Fl. R. S.

4. *heteromorpha*, Griff. MSS. ⊙ Serampore. Fl. R. S.

POTAMOGETON, L. (*Spreng. syst.* 1, *p.* 375, *No.* 566;—*R. Br. pr. p.* 343; *Endl. gen. and ph.* 1, *p.* 231.) *Pond-weed.*

1. *indicus*, Roxb. (*fl. ind.* 1, *p.* 452; *ed. Carey*, 1, *p.* 471;—*Spreng. syst. c. p. p.* 48;—*J. Grah. Cat. B. pl. p.* 200.) ⊙ Both Peninsulas of India. Bengal, (Calcutta, Serampore.) Oude, &c. Fl. small, green, Feb. and March; fr. April and May.

2. *tuberosus*, Roxb. (*fl. ind.* 1, *p.* 452; *ed. Carey*, 1, *p.* 472;—*Spreng. syst.* 1, *p.* 499, excl. syn. Roth.;—*J. Grah. Cat. B. pl. p.* 200.) ⊙ Peninsula of India. Bengal. (Calcutta, Serampore.) Oude. Nepal. Fl. small, green, Feb. and March; fr. April and May. Much employed in the N. W. Provinces of India in the process of purifying sugar. (*Royle.*)

SPATHIUM, Lour. (*Endl. gen. pl.* 1, *p.* 267.—Aponogeton, L. partly. Erroneously referred to Saururaceæ.)

1. *chinense*, Lour. (Aponogeton monostachys, *L. fil.*;—*Spreng. syst.* 2, *p.* 465;—*Schult. syst.* 8, *p.* 1591;—*Lam. ill. t.* 276, *f.* 1;—*B. Repos. t.* 406;—*Roxb. Corom.* 1, *t.* 81; *fl. ind.* 2, *p.* 210;—*J. Grah. Cat. B. pl.* 200.—Saururus nutans, *L. mant.*—*Rheed.* 11, *t.* 15.) ঘেচু *Ghechoo.* 4. S. China. Banks of the Irawaddi. Ceylon. Coromandel. Salsette. Concans. Bengal, (Serampore.) Silhet. Monghir. Fl. small, purplish-white, with blue anthers), R. S.; fr. C. S. The natives are fond of the *roots*, which are nearly as good as potatoes. (*Roxb.*)

2. *undulatum*, (Aponogeton undulatus, *Roxb. fl. ind.* 2, *p.* 211.) 4. Bengal. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

3. *microphyllum*, (Aponogeton microphyllus, *Roxb. fl. ind.* 2, *p.* 211.) 4. Bhootan Mountains. fl. R. S.; fr. C. S. (*Roxb.*)

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* *Spathium? crispum* (Aponogeton crispus, Hb. Buch.; Thunb.?) Muhuyadabad. Patangunj.—*S. ? echinatum.* (Aponogeton echinatus, Roxb.) Shallow fresh water all over the Circars.

ORDER CCLV.—TRIGLOCHINACEÆ (JUNCAGINACEÆ, Lindl. Nat. Syst. p. 367.)

Marshy plants, by Lindl. referred to 4 genera. Of these Spreng. syst. enumerates 5 species for New Holland and Van Diemen's Land ; 5 for S. America ; 4 for Europe ; 3 for N. America ; and 1 for the Straits of Magellan. In S. Africa have been discovered 3 species of Triglochin, 2 of which are common to Europe, and in the Himalayas, *Triglochin himalense*, which, according to Royle, is scarcely to be distinguished from T. palustre of Europe. "Properties unknown." (*Lindl.*)

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* *Triglochin palustre*, L. ; E. B. 6, t. 366. ♂. Europe.—*T. Barrelieri*, Loisel. 4. S. Europe. N. Africa.—*T. striatum*, Ruiz. and Pav. 4. Inundated places of Peru.—*T. procerum*, R. Br. Tropical N. Holland. —*T. dubium*, R. Br. Tropical N. Holland.—*Scheuchzeria palustris*, L. ; E. B. 26, t. 1801. 4. Swamps of England, &c.—*Lilæa subulata*, Humb. Sides of lakes in New Granada.

ORDER CCLVI.—PANICACEÆ, (GRAMINACEÆ, Lindl. Nat. Syst. p. 369.)

THE GRASS TRIBE.

This order is exceedingly numerous, and likely to increase in a larger ratio than the other phænogamous plants, so that the future proportion of grasses to the rest of Endogens will perhaps be as 1 to 20, or even perhaps as 1 to 16. Among the grasses there are both land and water-plants, but no marine ones. They occur in every soil, in society with others or alone, the latter in such abundance as entirely to occupy considerable districts. Sand appears to be less favourable to them, but even this has species nearly peculiar to itself. The diffusion of the order has almost no other limits than those of the whole vegetable kingdom. Species of it have been discovered on Spitzbergen, on the mountains of S. Europe, nearly to the snow-line, and on the Andes. The tropical grasses differ from the extra-tropical ones, by their greater size, some (f. ex. the bamboos) being 50-60 feet high ; by their larger leaves ; by their frequently separate sexes, and lastly by their softer, more downy and elegant flowers, The extra-tropical grasses on the contrary, far surpass the tropical ones in the number of individuals. That compact grassy turf, which, especially in the wilder parts of the temperate zones, in spring and summer composes the green meadows and pastures, is almost entirely wanting in the torrid zone. The grasses here do not grow crowded together, but, like other plants, more dispersed. Even

in the southern parts of Europe, the assimilation to the warmer regions, in this respect, is by no means inconsiderable. Donax arundinaceus, by its height, reminds us of the bamboo; while Saccharum Ravennæ, S. Teneriffæ, Imperata arundinacea, Lagurus ovata, Lygeum Spartum, and the species of Andropogon, Ægilops, &c., by their separate sexes exhibit tropical characters. The grasses are also less gregarious, and meadows occur seldomer in the south than in the north of Europe. (*Extr. from Schouw, in Jameson's philos. journ. April* 1825, *copied by Lindl.*)

What may be the amount of Indian species of grasses, hitherto discovered, it is impossible for us to state, Nees von Esenbeck's synopsis of Wight's and Royle's grasses not being procurable, and those enumerated in Wall. Cat. still remaining in the hands of R. Brown. Supposing, however, the aggregate of the former to be 200, and the latter, after abstracting common forms, to amount to 100, the sum total of discovered Indian grasses will, on reducing Griffith's gramineous collections, probably be about 1300. The collections stand thus :—

Griffith, 270 from Affganisthan; 150 from the Peninsula of India; 128 from the Khassya Mountains; 100 from Assam; 100 from Serampore; 93 from Mergui; 73 from the Mishmee Hills; and 51 from Bhootan. In all 965, but after abstracting common forms perhaps 800.

Roxb.—217.—*Royle and Wight.*—200 ?—*Wall. Cat.* 131, reducible perhaps to 100.

As the Indian tropical grasses are abundant, and large in foliage, so do the species which extend along the foot of the Himalayas form a grass jungle sufficiently high to conceal the elephant and rhinoceros, while in ascending, we find many of the same genera and species which are met with in proceeding from the equator to the poles. The grasses found in the plains of India, some of which are confined to the Peninsula, but many of which are as common in the northern as in the southern plains, belong to genera, of some of which a few species ascend the mountains, and are found there at considerable elevations in the rainy season of the year. The majority of these genera are Asiatic, and the greater number of their species are contained in, and some of them confined to India; but some of the genera are as characteristic of the floras of America, New Holland and Africa. In the plains of N. India there are a few species likewise found in European countries, or which belong to genera more like European than Indian forms, f. ex. the common Doob grass, (*Cynodon Dactylon.*) Among the cold weather cultivation of wheat and barley, two European species are very commonly found, viz. *Lolium temulentum*, L. (the only grass, in its normal state of a deleterious nature,) and *Avena fatua*, L. Though many of the Gramineæ found in the Himalayas belong to genera of which the greater number of species inhabit tropical situations, yet it is only in the rainy season that these occur, and the mass of the grasses, like that of the vegetation in general of these mountains, will be found to be analogous to that of European countries; and many of those very species which are most

valued as pasture grasses in England, are found forming the grassy sward of the Himalayas. The plains of India being subject to great heat, with draught at one season and heavy rains at another, cannot be expected to present any pasture grounds resembling those of the best parts of Europe; but the temperature of the cold weather months, especially in the northern provinces, being such as to be most favourable for the cultivation of the same cereal grasses as in Europe, it is not surprising that good grass is produced there, and that many Europeans prepare very excellent hay. Their rapid growth, great height, and subsequent dryness render many of the Indian grasses unfit for pasture, at the end of the year. This the inhabitants of the tracts at the base of the Himalayas, as well as those within these mountains, remedy by yearly burning down the old and dry grass, so as to allow the young blades, which immediately sprout up, to afford fodder for the cattle. But most Europeans in India prefer, or indeed only give their horses, the creeping stems and leaves of the *Dooba grass*, which is by far the most common in every part of India, and moreover flowers through the greater part of the year. In N. India it is a common practice to form lawns and pastures of moderate extent, by planting pieces of the creeping stems of this grass, which yields excellent hay in what is the spring of the year in Europe. It forms indeed three-fourths of the food of the horses and cows in the south of India. (*Royle ill. p.* 415-21.) Cattle are also fed on the grass, whether green or dry, of *Kodu* (Paspalum scrobiculatum, L.); *Cheena-ghas* (Panicum miliaceum, Willd.); *Jalgantee* (Panicum Helopus Trin.); *Kungoo Panicum miliare* (Panicum italicum, L.); *Burogalgantea* (Panicum setigerum, Retz.); *Chhoto-jalgantee* (Panicum repens, Roxb.; *Shama* (Panicum colonum, L.); *Damra-shama* (Panicum frumentaceum, Roxb.); *Bujura* (Penicillaria spicata, Willd.); *Jooar* (Sorghum vulgare, Pers.; *Sorghum cernuum*, Willd; *S. saccharatum*, Pers. Roxb,); *Makurjalee* (Panicum ciliare, Retz.); *Kash.* (Saccharum spontaneum, L.); *Andropogon Martini*, Roxb.; *Buksa* (Rottböllia glabra, Roxb.); *Juva* (Hordeum hexastichon, L.,) &c.

The prevalence of particular grains in the zones and continents depends not only on climate, but is determined also by the civilization, industry and traffic of the people, and often by historical events, thus the earth may, according to Schouw, be divided into five grand tracts, distinguished by the prevalence of barley and oats, rye, wheat, maize or rice. *The two first* extend farthest to the north in Europe, constituting in the northern parts of Norway and Sweden, and in a part of Siberia and Scotland, the principal vegetable nourishment. Rye is the prevailing grain in the South of Norway and Sweden, in part of Siberia, in Denmark, and all the countries bordering on the Baltic. In the latter, another very nutritious grain, *Buck-wheat*, is very frequently cultivated. The rye tract is generally associated with the cultivation of wheat, barley there being chiefly cultivated for the manufacture of beer, and oats for supplying food for horses, The *wheat* tract comprehends the middle or the south of France,

England, part of Scotland and Germany, Hungary, the Crimea and Caucasus, as also the lands of middle Asia, where agriculture is followed. The next tract, where wheat still abounds, but no longer exclusively furnishes bread, maize and rice becoming frequent, includes Portugal, Spain, part of Mediterranean, France, Italy, Greece, the Canaries, Barbary, Egypt, Nubia, Arabia, Persia and N. India. In China and Japan rice is found to predominate. The cause of this difference between the east and the west of the old continent appears to be in the manners and peculiarities of the people. In N. America, wheat and rye grow as in Europe, but more sparingly. Maize is more reared in the new than in the old continent, and rice predominates in the southern provinces of the United States. In the torrid zone, *Maize* predominates in America, *Rice* in Asia, and both these grains in nearly the same ratio in Africa. The cause of this distribution is, without doubt, historical; for Asia is the native country of rice, and America of maize. In some situations, especially in the neighbourhood of the tropics, wheat is also met with, but always subordinate to maize and rice. In the high lands of S. America, maize grows to the height of 7200 feet above the level of the sea, but only predominates between 3000 and 6000 f. of elevation. Below 3000 it is associated with yams, manihot, batatas and plantains; while, from 6000 to 9260, the European grains abound, wheat in the lower regions, and rye and barley in the higher, along with which Chenopodium Quino, *Willd*, as a nutritious plant must also be mentioned. Potatoes alone are cultivated from 9260 to 12300 feet. In the torrid zone in Africa, plantains, manihot, yams, Arachis hypogea, L. and Sorghum vulgare, Pers. are added to the maize and rice. To the south of the Capricorn, f. ex. in S. Brazil, Buenos Ayres, Chili, C. G. H., and the temperate zone of New Holland, wheat predominates; barley, however, and rye, make their appearance in the southernmost parts of these countries, and in Van Dieman's Land, and in New Zealand, the European grains are now cultivated with success. In the Islands of the South Sea, grain of every kind disappears, its place being supplied by the Bread-fruit-tree, the Plantain and Tacca pinnatifida, Forst. Tropical New Holland exhibits no agriculture, the inhabitants living on the produce (Sago) of various palms, and some species of Arum. (*Schouw. l. c.*) The Cerealia of India will be mentioned under the several species.

A. Phalareæ.

(Phalarideæ, Nees.;—*Lindl. Nat. Syst. p.* 378.)

Phalaris, L. (*Endl. gen. pl.* 1, *p.* 81.)

1. *aquatica*, Ait. (*Spreng. syst.* 1, *p.* 272.) ⊙ S. Europe. Fl. Feb. and March.
2. *canariensis*, L. (*Spreng. syst.* 1, *p.* 272;—*E. B.* 19, *t.* 1310.) *Canary-grass.* ⊙ Canaries. *Seeds* food for birds.

Holcus, L. (*Endl. l. c.*)

1. *mollis*, L. (*Spreng. syst.* 1, *p.* 292;—*E. B.* 17, *t.* 1170.) 4. Meadows of England and S. Europe. Fl. C. S.

2. *lanatus*, L. (*Spreng. l. c.*;—*E. B.* 17, *t.* 1169;—*fl. Dan. t.* 1181.) ♃. Meadows of Europe. Fl. C. S.

HIEROCHLOA, Gmel. R. Br. (*Endl. gen. pl.* 1, *p.* 81.)

1. *borealis*, Röm. and Sch. (*Spreng. syst.* 1, *p.* 247.—Holcus odoratus, *L.*;—*fl. Dan. t.* 963.) ♃ North and middle Europe. Fl. C. S. An aromatic, sweet-scented grass.

B. PANICEÆ.

Nees.—Lindl. Nat. Syst. p. 378.

PASPALUM, L. (*Endl. gen. pl.* 1, *p.* 82.)

1. *stoloniferum*, Bosc. (*Spreng. syst.* 1, *p.* 248;—*Roxb. H. B. p.* 7.—P. racemosum, *Jacq. ic. rar. t.* 302.—P. purpureum, *Ruiz. and Pav.*—Milium latifolium, *Cav. ic.* 3, *p.* 37, *t.* 273.) ♃. Peru, where it is cultivated (⊙) because of the excellent fodder it yields. Fl. C. S.

2. *stoloniferum*, L. (*Spreng. syst.* 1, *p.* 246;—*Roxb. fl. ind.* 1, *p.* 278; *ed. Carey*, 1, *p.* 281.) মৈনা *Myna.* কোদ *Kodu.* ⊙ Bengal, (Serampore,) &c. Fl. and fr. R. S. Cultivated. The seed is an article of diet with those natives, who inhabit mountains and barren parts of the country. Boiled it is as palatable as rice. (*Roxb.*)

β. *Kora*, Röm. and Sch. (P. Kora, *Willd. hort. berol. t.* 74;—*Roxb. fl. ind.* 1, *p.* 279, excl. syn. Forst.; *ed. Carey*, 1, *p.* 282.) কোদ *Kodu.* ⊙ Bengal, (Serampore,) &c. Fl. and fr. R. S. Cattle are very fond of both varieties, whether green or dry.

HELOPUS, Trin. (Eriochloa, *Kth.*;—*Endl. gen. pl.* 1, *p.* 83.)

1. *annulatus*, Nees. (*Spreng. syst.* 1, *p.* 246.—Milium ramosum, *Retz.*—*Roxb. fl. ind.* 1, *p.* 315; *ed. Carey*, 1, *p.* 317.) চিড়িয়া ঘাস *Chiriya-ghas.* ♃. Bengal, (Serampore.) Fl. and fr. R. S.

2. *longiflorus*, Retz. (*Spreng. syst. p.* 245;—*Roxb. fl. ind.* 1, *p.* 279; *ed. Carey*, 1, *p.* 283;—*Rheed.* 12, *t.* 44.) ♃. Bengal, (Serampore.) Peninsula of India, &c. Fl. and fr.; R. S.

3. *virgatus*, L. (*Spreng. syst.* 1, *p.* 248;—*Gärtn. fr.* 2, *p.* 1, *t.* 80, *f.* 1.—*Sloane. t.* 69, *f.* 2.) ♃. Jamaica. Fl. and fr. H. S.

4. *longifolius*, Roxb. (*fl. ind.* 1, *p.* 280; *ed. Carey*, 1, *p.* 283.) ⊙ Sumatra? In H. C. G. fl. and fr. R. S. (*Roxb.*)

5. *filiculmis*, Nees. (Milium filiforme, *Roxb. fl. ind.* 1, *p.* 314; *ed. Carey*, 1, *p.* 316; not Lag.) কঙ্গু জুড়িয়া *Kungoo-jooriya.* ♃. Bengal, (Serampore.) Fl. and fr. R. S.

6. *paradoxus*, Nees. (Piptatherum paradoxum, *Beauv.*;—*Röm. and Sch.* 2, *p.* 328.—Milium paradoxum, *Schrad.*;—*Scop. carn. No.* 83, *t.* 1;—*Schreb. gram.* 1, *p.* 50, *t.* 28, *f.* 2;—*Host. gram.* 3, *p.* 16, *t.* 23.—Agrostis paradoxa, *L.*) ♃. Austria. France. Caucasus. Fl. C. S.

CORIDOCHLOA, Nees. (*Edinb. phil. journ.* 1832, *July.*)

1. *cimicina*, Nees. (Urochloa cimicina, *Kth.*—Axonopus cimicinus, *Beauv.*; *Röm. and Sch.* 2, *p.* 317.—Panicum cimicinum, *Retz.*;—*Roxb. fl. ind.* 1, *p.* 291; *ed. Carey*, 1, *p.* 295.—Milium cimicinum, *L.*—Agrostis cimicina, *Poir.*) ⊙ Peninsula of India. Fl. and fr. R. S.

UROCHLOA, Beauv. (*Endl. gen. pl.* 1, *p.* 83.)

1. *panicoïdes*, Beauv. (Milium sanguinale, *Roxb. fl. ind.* 1, *p.* 315; *ed. Carey*, 1, *p.* 296.—Panicum sanguinale, *Burm. ind. t.* 10, *f.* 1.) চিত্‌চিড়য়া *Chitrichirya.* ⊙ Bengal, (Serampore,) &c. Fl. and fr. R. S.

PANICUM, L. (*Endl. gen. pl.* 1, *p.* 83.)

1. *fluitans*, Retz. (*Röm. and Sch.* 2, *p.* 425;—*Roxb. fl. ind.* 1, *p.* 293; *ed. Carey*, 1, *p.* 296;—*J. Grah. Cat. B. pl. p.* 237.) পেটিনড় *Petinur.* ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
2. *flavidum*, Retz. (*Röm. and Sch.* 2, *p.* 426;—*Spreng. syst.* 1, *p.* 308. —P. brizoïdes, *Roxb. fl. ind.* 1, *p.* 292; *ed. Carey*, 1, *p.* 296; not Retz.) ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
3. *repens*, Roxb. (*fl. ind.* 1, *p.* 299; *ed. Carey*, 1, *p.* 302, scarcely *L.*?) ছোট জালগাঁটী *Chhoto-jalgantee.* ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
4. *miliaceum*, Willd. (*Röm and Sch.* 2, *p.* 434;—*Roxb. fl. ind.* 1, *p.* 310; *ed. Carey*, 1, *p.* 312?—*J. Grah. Cat. B. pl. p.* 237.) চীন ঘাস *Cheeno-ghas.* ⊙ Cultivated in India. Fl. R. S.; fr. C. S.
5. *miliare*, Lam. (*Röm. and Sch.* 2, *p.* 435;—*Roxb. fl. ind.* 1, *p.* 309; *ed. Carey*, 1, *p.* 311;—*J. Grah. Cat. B. pl. p.* 237.) ⊙ Cultivated in India. Fl. R. S.; fr. C. S.
6. *miliaceoïdes*, Roxb. (*H. B. p.* 8.) In H. C. G. Fl. R. S.; fr. C. S. (*Roxb.*)
7. *jumentosum*, Pers. (*syn.* 1, *p.* 83.) ♃. Guinea. Cultivated in Tropical America and India, under the name of Guinea-grass. Fl. and fr. R. and C. S.
? 8. *acariferum*, Trin. (Melica latifolia, *Roxb. fl. ind.* 1, *p.* 328; *ed. Carey*, 1, *p.* 330.) ♃. Garrow Hills. Khassya Mountains. Fl. March.
9. *curvatum*, L. (*Röm. and Sch.* 2, *p.* 442;—*Roxb. fl. ind.* 1, *p.* 288; *ed. Carey*, 1, *p.* 289.) ⊙ Peninsula of India. Fl. R. S.; fr. C. S. (*Roxb.*)
10. *uliginosum*, Roxb. (*H. B. p.* 8; *fl. ind.* 1, *p.* 308; *ed. Carey*, 1, *p.* 310;—*Röm. and Sch.* 2, *p.* 442.) বড়ন্দ *Burundo.* ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S.
11. *paludosum*, Roxb. (*fl. ind.* 1, *p.* 307; *ed. Carey*, 1, *p.* 310;—*Schult. Mant.*) বরেথী *Burethee.* কলসনড় *Kulusnur.* ⊙ Circars. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
12. *trigonum*, Retz. (*Röm. and Sch.* 2, *p.* 443;—*Roxb. fl. ind.* 1, *p.* 305; *ed. Carey*, 1, *p.* 307.) ♃. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
13. *interruptum*, Willd. (*Röm. and Sch.* 2, *p.* 462;—*Roxb. fl. ind.* 1, *p.* 286; *ed. Carey* 1, *p.* 289.) নড়দল *Nurdul.* ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S.
14. *patens*, L. (*Röm. and Sch.* 2, *p.* 454;—*Roxb. fl. ind.* 1, *p.* 305; *ed. Carey*, 1, *p.* 308.) ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S.

15. *Roxburghii*, Spreng. (*syst.* 1, *p.* 320.—P. tenellum, *Roxb. fl. ind.* 1, *p.* 306; *ed. Carey*, 1, *p.* 309;—*J. Grah. Cat. B. pl. p.* 237; not Lam.) জুপি কঙ্কা *Joopi-kunka.* ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S.
16. *corymbosum*, Roxb. (*fl. ind.* 1, *p.* 292; *ed. Carey*, 1, *p.* 295;—*Spreng. syst.* 1, *p.* 311.) ⊙ Coromandel. In H. C. G. fl. R. S. (*Roxb.*)
17. *serrulatum*, Roxb. (*fl. ind.* 1, *p.* 307; *ed. Carey*, 1, *p.* 309;—*Spreng. syst.* 1, *p.* 311.) ⊙ Moist vallies of India. In H. C. G. fl. R. S. (*Roxb.*)
18. *sarmentosum*, Roxb. (*fl. ind.* 1, *p.* 308; *ed. Carey*, 1, *p.* 311;—*Spreng. syst.* 1, *p.* 321.) ♃. Sumatra. In H. C. G. fl. R. S. (*Roxb.*)
19. *asperatum*, Kth. (P. plicatum, *Roxb. fl. ind.* 1, *p.* 311; *ed. Carey*, 1, *p.* 313; not Lam.) ⊙ Sumatra. In H. C. G., fl. R. S.; fr. C. S. (*Roxb.*)
20. *nepalense*, Spreng. (*syst.* 1, *p.* 321.—P. nervosum, *Roxb. fl. ind.* 1, *p.* 311; *ed. Carey*, 1, *p.* 314; not Lam.) ♃. Nepal. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
21. *costatum*, Roxb. (*fl. ind.* 1, *p.* 312; *ed. Carey*, 1, *p.* 314;—*Spreng. syst.* 1, *p.* 311.) ⊙ Mauritius. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

(*Digitaria*, Scop.;—*Spreng. syst.* 1, *p.* 133, *No.* 283.)

22. *sanguinale*, L. (*E. B.* 12, *t.* 849.—Digitaria sanguinalis, *Scop.*—*Röm. and Sch.* 2, *p.* 469.) *Polish Millet.* ⊙ Cultivated in Europe. Asia, and America. Fl. C. S.; fr. Feb. *Seeds* boiled like rice with milk are highly esteemed in Poland and Lithuania.
23. *ægyptiacum*, Retz. (*Roxb. fl. ind.* 1, *p.* 289; *ed. Carey*, 1, *p.* 293;—*J. Grah. Cat. B. pl. p.* 237.—P. filiforme, *Jacq. obs.* 3, *p.* 8, *t.* 30.—Digitaria ægyptiaca, *Willd.*;—*Röm. and Sch.* 2, *p.* 471.) ⊙ America. Levant. Egypt. Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.
24. *filiforme*, Roxb. (*fl. ind.* 1, *p.* 290; *ed. Carey*, 1, *p.* 203; not L.?) ⊙ China. Fl. throughout the year, but chiefly during R. S. (*Roxb.*)
25. *commutatum*, Nees. (P. ciliare, *Roxb. fl. ind.* 1, *p.* 290; *ed. Carey*, 1, *p.* 293;—*J. Grah. Cat. B. pl. p.* 237, not Willd.?) মাকর জালী *Makur-jalee.* ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S. Cattle are very fond of this grass.
26. *lineare*, L. (*Roxb. fl. ind.* 1, *p.* 291; *ed. Carey*, 1, *p.* 294; excl. syn. Burm.—Digitaria linearis, *Pers.*;—*Schult.*) ⊙ China. Fl. throughout the year, but especially during the R. S. (*Roxb.*)
27. *orthum*, (Digitaria stricta, *Roth.*; *Röm. and Sch.* 2, *p.* 474.) ⊙ Bengal, (Serampore.) Fl. and fr. R. S.
28. *Helopus*, Trin. (P. hirsutum, *Kön.*;—*Roxb. fl. ind.* 1, *p.* 300; *ed. Carey*, 1, *p.* 303; not Swz.—P. Königii, *Spreng. syst.* 1, *p.* 311.—Oplismenus? hirsutus, *Schult.*—Setaria? hirsuta, *Kth.*) জালগাঁটী *Jalgantee.* ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S. Cattle very fond of this grass.

(*Setaria*, Beauv.—*Endl. gen. pl.* 1, *p.* 85, under Pennisetum.)

29. *verticillatum*, L. (*E. B.* 13, *t.* 874;—*Roxb. fl. ind.* 1, *p.* 301; *ed. Carey*, 1, *p.* 304;—*J. Grah. Cat. B. pl. p.* 237.—Setaria verticillata, *Beauv.*;—*Röm. and Sch.* 2, *p.* 488.) ♃. Europe. Caucasus. N. America. Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

30. *helvolum*, L. (P. glaucum, *Roxb. fl. ind.* 1, *p.* 284; *ed. Carey*, 1, *p.* 287;—*J. Grah. Cat. B. pl. p.* 237; not L.—Setaria helvola, *Röm. and Sch.*—Pennisetum helvolum, *R. Br. pr.* 1. *p.* 195.) পিঙ্গি নাছি *Pinginachhi.* ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

31. *geniculatum*, Horn. (Setaria geniculata, *Röm. and Sch.* 2, *p.* 491.—Pennisetum geniculatum, *Jacq.*) ♃. W. Indies. Fl. C. S.

32. *italicum*, L. (*Roxb. fl. ind.* 1, *p.* 302; *ed. Carey*, 1, *p.* 305;—*J. Grah. Cat. B. pl. p.* 237.—Setaria italica, *Beauv.*—Pennisetum italicum, *R. Br. pr.* 1, *p.* 195;—*Rumph.* 5, *t.* 75, *f.* 2.) কঙ্গু *Kungoo.* ⊙ Cultivated. Fl. R. S.; fr. C. S. Seed an article of diet among the natives.

33. *macrochætum*, (Setaria macrochæta, *Spreng. syst.* 1, *p.* 305.—Pennisetum macrochætum, *Jacq.*) ⊙ Bengal, &c. Fl. and fr. C. S.

34. *tomentosum*, Roxb. (*fl. ind.* 1, *p.* 301; *ed. Carey*, 1, *p.* 303.—Setaria? tomentosa, *Kth.*) ⊙ Peninsula of India. In H. C. G. fl. R. S. (*Roxb.*)

(*Echinochloa*, Beauv.)

35. *stagninum*, Retz. (*Roxb. fl. ind.* 1, *p.* 295; *ed. Carey*, 1, *p.* 298.—*J. Grah. Cat. B. pl. p.* 237.—Echinochloa stagnina, *Röm. and Schult.* 2, *p.* 477.) দল *Dul.* ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

36. *Crus corvi*, L. (*Roxb. fl. ind.* 1, *p.* 296; *ed. Carey.* 1, *p.* 299;—*J. Grah. Cat. B. pl. p.* 237;—P. Crus galli, *L.*;—*E. B.* 13, *t.* 876.—Echinochloa Crus corvi and Crus galli, *Röm. and. Sch.* 2, *p.* 477-78.) ⊙ Bengal, (Serampore,) &c. Fl. R. S; fr. C. S.

37. *setigerum*, Retz.? (*Roxb. fl. ind.* 1, *p.* 299; *ed. Carey*, 1, *p.* 302.—Echinochloa setigera, *Röm. and Sch.* 2, *p.* 480.) বড় জালগাঁটী *Burojalgantee.* ♃. Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S. Cattle are fond of it.

38. *hispidulum*, Retz. (*Röm. and Sch.* 2, *p.* 430;—*Roxb. fl. ind.* 1, *p.* 303; *ed. Carey*, 1, *p.* 306.) বড় শামা *Buro-shama.* ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

Oplismenus, Kth. (*Endl. gen. pl.* 1, *p.* 84.)

1. *lanceolatus*, Kth.—(Panicum lanceolatum, *Retz.*—*Roxb. fl. ind.* 1, *p.* 294; *ed. Carey*, 1, *p.* 297.—Echinochloa lanceolata, *Röm. and Sch.* 2, *p.* 476.) ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

2. *Burmanni*, Röm. and Sch. (*syst.* 2, *p.* 482.—Orthopogon Burmanni, *R. Br. pr. p.* 194, *annot.*—Panicum Burmanni, *Retz.*;—*Roxb. fl. ind.* 1, *p.* 295; *ed. Carey*, 1, *p.* 298;—*J. Grah. Cat. B. pl. p.* 237.—Panicum hirtellum, *Burm. ind. t.* 12, *f.* 1.—Oplismenus Burmanni, *Röm. and Sch.* 2, *p.* 482;—*Rumph.* 6, *t.* 5, *f.* 3?) ⊙ Bengal, (Serampore,) &c. Fl. and fr. R. S.

3. *colonus,* Kth. (Panicum colonum, *L.; Röm. and Schult.* 2, *p.* 424;—*Roxb. fl. ind.* 1, *p.* 296; *ed. Carey,* 1, *p.* 299;—*J. Grah. Cat. B. pl. p.* 237.) শামা *Shama.* ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S. Cattle are very fond of it.

4. *frumentaceus,* Roxb. (Panicum frumentaceum, *Roxb. fl. ind.* 1, *p.* 304; *ed. Carey,* 1, *p.* 307;—*J. Grah. Cat. B. pl. p.* 137.) দামড়া শামা *Damra-shama.* ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S. Several varieties of this grass are known to the Hindoo farmers. The seed is wholesome and nourishing, and constitutes an article of diet, particularly among the lower classes of the natives. It yields about fifty-fold in a good soil. Cattle are fond of it. (*Roxb.*)

? 5. *strictus,* Schult. (Panicum strictum, *Roxb. fl. ind.* 1, *p.* 303; *ed. Carey,* 1, *p.* 1, *p.* 306; not R. Br. nor of others.—P. bengalense, *Spreng. syst.* 1, *p.* 311.) গাঁ° বেণা *Gang-bena.* ⊙ Bengal. Fl. R. S. (*Roxb.*)

Stenotaphrum, Trin. (*Endl. gen. pl.* 1, *p.* 84.)

1. *dimidiatum,* W. and A. Schrank. (Panicum dimidiatum, *Retz.—Röm. and Sch.* 2, *p.* 426;—*Roxb. fl. ind.* 1, *p.* 287; *ed. Carey,* 1, *p.* 290; —*Burm. ind. t.* 8, *f.* 3.—Rothbölla complanata, *Swz.*) ⊙ Peninsula of India. Mascarenhas Islands. Has been introduced into H. C. G.?

Trachys, Pers. (*syn.* 1, *p.* 85.—Trachyozus, *Reichb.—Endl. gen. pl.* 1, *p.* 85.)

1. *muricata,* Pers. (*l. c.;* where it is erroneously written "mucronata,"—Cenchrus muricatus, *L.—Schreb. gram.* 2, *p.* 69, *t.* 34.—Panicum squarrosum, *Retz.;—Roxb. Corom.* 3, *t.* 206; *fl. ind.* 1, *p.* 288; *ed. Carey.* 1, *p.* 291. excl. syn. Burm.;—*J. Grah. Cat. B. pl. p.* 237, excl. syn. P. conjugatum. Roxb.—Trachystachys muricata, *Dietr.*) ⊙ Coromandel. Has been introduced into H. C. G.?

Penicillaria, Swz. (*Endl. gen. pl.* 1, *p.* 85.)

1. *spicata.* Willd. (*Röm. and Sch.* 2, *p.* 498.—Holcus spicatus, *L.;—J. Grah. Cat. B. pl. p.* 238.—Alopecurus typhoïdes, *Gmel.*—Pennisetum typhoïdeum, *Pers.*—Panicum spicatum, *Delile;—Roxb. fl. ind.* 1, *p.* 283; *ed. Carey,* 1, *p.* 286.) বজরা *Bujura.* ⊙ Cultivated in India, especially over the higher lands on the Coast of Coromandel. Fl. R. S.; fr. C. S. Cattle are fond of the straw, and the grain is a very essential article of food amongst the natives. (*Roxb.*)

? 2. *involucrata,* Schultes. (Panicum involucratum, *Roxb. fl. ind.* 1, *p.* 284; *ed. Carey,* 1, *p.* 287.) ⊙ Mountains of Coromandel. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

Pennisetum, Rich. (*Endl. gen. pl. p.* 85.)

1. *barbatum,* Schult. (Panicum barbatum, *Roxb. fl. ind.* 1, *p.* 282; *ed. Carey,* 1, *p.* 285;—*Rumph.* 6, *t.* 7, *f.* 2, B.) ⊙ Moluccas. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

2. *holcoïdes,* Schult. (Panicum holcoïdes, *Roxb. fl. ind.* 1, *p.* 285; *ed. Carey,* 1, *p.* 288.) শুঁটী ঘাস *Shoonti-ghas.* ⊙ Mountains of India. In H. C. G. fl. R. S.; fr. C. S.

CENCHRUS, L. (*Endl. gen. pl.* 1, *p.* 85.)

1. *tribuloïdes.* Vahl. (*Röm. and Sch.* 2, *p.* 253.) ⊙ Virginia. Carolina. Fl. R. S.; fr. C. S.
2. *echinatus,* Vahl. (*Röm. and Sch. l. c.—Schreb. gram. p.* 9, *t.* 23, *f.* 1.—*Gärtn. fr.* 2, *t.* 8, *f.* 3.) ⊙ W. Indies. Cumana. Fl. R. S.; fr. C. S.

C. SACCHAREÆ, Nees.

Lindl. Nat. Syst. p. 378.

SORGHUM, Pers. (*syn.* 1, *p.* 101.—Trachypogon, *Nees.;—Endl. gen. pl.* 1, *p.* 108.)

1. *vulgare,* Pers. (*Röm. and Sch.* 2, *p.* 836.—S. commune, *Beauv.*—Holcus Sorghum, *L.—J. Grah. Cat. B. pl. p.* 238, excl. syn. Rumph. —H. Durra, *Forsk.*—Andropogon Sorghum, *Brot.—Roxb. fl. ind.* 1, *p.* 269; *ed. Carey,* 1, *p,* 273.) জুয়ার *Jowar.* ⊙ Arabia. Cultivated in India. Fl. C. S.; fr. H. S. Grain much used for food. The straw is reckoned very nourishing for cattle, and is a substitute for forage for horses, when grass is not obtainable. (*J. Grah.*)
2. *bicolor,* Willd. (*Röm. and Sch.* 2, *p.* 837.—Holcus bicolor, *L.*—Andropogon bicolor, *Roxb. fl. ind.* 1, *p.* 268; *ed. Carey,* 1, *p.* 272.) কাল দেবধান *Kalo-debdhan.* ⊙ Cultivated in India. Fl. C. S.; fr. H. S. Grain much used for food.
3. *cernuum,* Willd. en. (*Röm. and Sch. l. c.*—Holcus cernuus, *Willd. sp.* —Andropogon cernuus, *Roxb. fl. ind.* 1, *p.* 270; *ed. Carey,* 1, *p.* 273.—S. halepense, *Pers.*—Andropogon laxus, *Roxb.*) ♂ Cultivated by the natives of Munipore and other mountainous districts immediately East of Bengal. In H. C. G. fl. C. S. (*Roxb.*)
4. *saccharatum,* Pers. (*Röm. and Sch. l. c.;—Host. gram.* 4, *t.* 4.—Holcus saccharatus, *Arduim.*—Andropogon saccharatus, *Roxb. fl. ind.* 1, *p.* 271; *ed. Carey,* 1, *p.* 274;—*J. Grah. Cat. B. pl. p.* 238; —*Rumph.* 5, *t.* 75.) সাদা দেবধান *Sada-debdhan.* ⊙ Cultivated in India. Fl. C. S.; fr. H. S.

CHRYSOPOGON, Host. (Andropogon, *Nees.;—Endl. gen. pl.* 1, *p.* 108, under Andropogon, L.)

1. *acicularis,* Host.? (Andropogon acicularis, *Retz.;—Roxb. fl. ind.* 1, *p.* 262; *ed. Carey,* 1, *p.* 266;—*J. Grah. Cat. B. pl. p.* 238.—Raphis trivalvis, *Lour.;—Rheed.* 12, *t.* 43;—*Rhumph.* 6, *t.* 5, *f.* 1.) চোর কাঁটা *Chor-kanta.* 4. Moluccas. Cochin China. Sunda Islands. Ceylon. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. R. S.; fr. Oct. and Nov.
2. *filiformis,* (Andropogon filiformis, *Roxb. fl. ind.* 1, *p.* 256; *ed. Carey,* 1, *p.* 260.—Pollinia filiformis, *Spreng. syst.* 1, *p.* 238.) ⊙ Bengal, (Calcutta, Serampore,) &c. Fl. C. S.; fr. H. S.

IMPERATA, Curillo. (*Endl. gen. pl.* 1, *p.* 107.)

1. *cylindrica,* Beauv. (I. arundinacea, *Cyril. ic. rar. fasc.* 2, *t.* 11;—*Röm and Sch.* 2, *p.* 288;—*R. Br. pr.* 1, *p.* 204.—Lagurus cylindricus, *L.*—Saccharum cylindricum, *Lam.;—Roxb. fl. ind.* 1, *p.* 234;

ed. Carey, 1, *p.* 239;—*J. Grah. Cat. B. pl. p.* 239;—*Rumph.* 6, *t.* 7, *f.* 2.) উলু *Ooloo.* 4. Caucasus. New Holland. Moluccas. Ceylon. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. R. S; fr. C. S. In Bengal much used for thatch. (*Roxb.*)

SACCHARUM, L. (*Endl. gen. pl.* 1, *p.* 107.)

1. *spontaneum*, L. (*Roxb. fl. ind.* 1, *p.* 235; *ed. Carey*, 1, *p.* 240.—S. biflorum, *Forsk.*—Imperata spontanea, *Trin;—Röm. and Sch.* 2, *p.* 289.) কাশ *Kash.* 4. Arabia. Peninsula of India. Bengal, (Serampore,) &c. Fl. R. S; fr. C. S. Makes good mats for various purposes, and is used to thatch houses. (*Roxb.*) Buffaloes are fed on this grass.
2. *fuscum*, Roxb. (*fl. ind.* 1, *p.* 236; *ed. Carey*, 1, *p.* 241;—*Spreng. syst.* 1, *p.* 281.) পাটী খড়ি *Patee-Khoree.* 4. Bengal, (Serampore.) Fl. R. S; fr. C. S. The natives make their pens of the culms of this and the next species, and use them also for screens and light fences. (*Roxb.*)
3. *semidecumbens*, Roxb. (*fl. ind.* 1, *p.* 236; *ed. Carey*, 1, *p.* 241.) খড়ি *Khoree.* 4. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
4. *officinarum*, L. (*Spreng. syst.* 1, *p.* 281;—*Roxb. fl. ind.* 1, *p.* 237; *ed. Carey*, 1, *p.* 242;—*J. Grah. Cat. B. pl. p.* 239;—*Rumph.* 5, *t.* 74, *f.* 1.) উক *Ook. Sugar-Cane.* Produces Sugar. Arab, *Sukkur;* Hind. *Jaggery.* 4. E. and W. Indies. Society Islands. Fl. R. S. The juice of the sugar cane is the best antidote to arsenic. (*Chisholm.*)
5. *sinense*, Roxb. (*fl. ind.* 1, *p.* 239; *ed. Carey*, 1, *p.* 244.—S. chinense, *Spreng. syst.* 1, *p.* 281.) 4. China. Cultivated in India, Fl. R. S.
6. *procerum*, Roxb. (*fl. ind.* 1, *p.* 243; *ed. Carey*, 1, *p.* 248;—*Spreng. l. c.*, excl. syn.) তেঙ্গ *Teng.* 4. Bengal, (Serampore.) Fl. R. S.; fr. C. S. Culms used by the natives for screens and various other economical purposes. (*Roxb.*)
7. *Sara*. Roxb. (*fl. ind.* 1, *p.* 244; *ed. Carey*, 1, *p.* 249;—*Spreng. syst.* 1, *p.* 281.) শর *Shur.* 4. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
8. *Munja*, Roxb. (*fl. ind.* 1, *p.* 246; *ed. Carey*, 1, *p.* 250;—*Spreng. l. c.*) 4. Hindoosthan. In H. C. G. fl. R. S.; fr. H. S. (*Roxb.*)
9. *canaliculatum*, Roxb. (*fl. ind.* 1, *p.* 246; *ed. Carey*, 1, *p.* 251.) 4. Bengal, (Serampore.) Fl. R. S; fr. C. S.
10. *violaceum*, Tussac. (*Röm. and Sch.* 2, *p.* 285.) "*Canne de Hayte.*" *Otaheytie Cane.* 4. Cultivated in India, &c.

BATRATHERUM, Nees. (*Lindl. Nat. Syst. p.* 379.)

1. *lanceolatum*, Schult. (Andropogon lanceolatus, *Roxb. fl. ind.* 1, *p.* 257; *ed. Carey*, 1, *p.* 262.) ⊙ Coromandel. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

LIPEOCERCIS, Trin. (*Endl. gen. pl.* 1, *p.* 108.)

1. *serrata*, Trin. (Andropogon serratus, *Retz.;—Roxb. fl. ind.* 1, *p.* 253; *ed. Carey*, 1, *p.* 257;—*J. Grah. Cat. B. pl.* 238; not Thunb. —A. filiformis, *Pers.;—Röm. and Sch.* 2, *p.* 811; not Roxb.) দেতারা *Detara.* ⊙ Bengal. Concans. Fl. C. S; fr. H. S. Eaten by cattle. (*Roxb.*)

HETEROPOGON, Pers. (*syn.* 2, *p.* 533.—*Endl. gen. pl.* 1, *p.* 108, under Andropogon.)

1. *contortus*, Beauv. (*Röm. and Sch.* 2, *p.* 836.—H. hirtus, *Pers. l. c.*—Andropogon contortus, *L.*;—*R. Br. pr.* 1, *p.* 201;—*Roxb. fl. ind.* 1, *p.* 253; *ed. Carey*, 1, *p.* 258;—*J. Grah. Cat. B. pl. p.* 238, excl. syn. Röm. and Sch.) ⊙ Peninsula of India. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)
2. *tenellus*, Schult. (Andropogon tenellus, *Roxb. fl. ind* 1, *p.* 254; *ed. Carey*, 1, *p.* 259.) ⊙ Bengal. Fl. C. S.; fr. H. S.

SPODIOPOGON, Trin. (*Endl. gen. pl.* 1, *p.* 108, under Ischæmum.)

1. *semisagittatus*, (Ischæmum semisagittatum, *Roxb. fl. ind.* 1, *p.* 320; *ed. Carey*, 1, *p.* 322;—*Spreng. syst.* 1, *p.* 298.) ⊙ Bengal, (Serampore. Fl. and fr. C. S.
2. *conjugatus*, (Ischæmum conjugatum, *Roxb. fl. ind.* 1, *p.* 321; *ed. Carey*, 1, *p.* 323;—*Spreng. syst.* 1, *p.* 298;—*J. Grah. Cat. B. pl. p.* 239.) ⊙ Bengal, (Serampore.) Peninsula of India. Fl. and fr. C. S.
3. *geniculatus*, (Ischæmum geniculatum, *Roxb. fl. ind.* 1, *p.* 322; *ed. Carey*, 1, *p.* 324;—*Spreng, syst.* 1, *p.* 298.) ⊙ Bengal. Fl. and fr. C. S.

VOSSIA, Wall, and Griff. (*Journ. as. soc. vol.* 5, *p.* 572.)

1. *procera*, Wall. and Griff. (*l. c. t.* 23.—Ischæmum cuspidatum, *Roxb. fl. ind.* 1, *p.* 324; *ed. Carey*, 1, *p.* 325;—*Kth. agrost.* 1, *p.* 516.) aquatic. ⊙ Bengal, &c. Fl. and fr. C. S.

ANDROPOGON, L. (*Endl. gen. pl.* 1, *p.* 108.)

1. *muricatus*, Retz. (*Roxb. fl. ind.* 1, *p.* 265; *ed. Carey*, 1, *p.* 269;—*J. Grah. Cat. B. pl. p.* 238.—Anatherum muricatum, *Beauv.*;—*Röm. and Sch.* 2, *p.* 808.—Phalaris Zizania, *L.*) খসখস ঘাস *Khuskhus-ghas.* ♃. Bengal, Peninsula of India. (Serampore.) Fl. R. S. fr. C. S.; The fragrant roots of this grass are well known all over India, and used for making tatties, covers for palankeens, large fans, &c. The grass is used for thatching bungalows in the Deccan. (*Roxb.*)
2. *cymbarius*, L. (Authistiria cymbaria, *Roxb. fl. ind.* 1, *p.* 251; *ed. Carey*, 1, *p.* 255;—*J. Grah. Cat. B. pl. p.* 239.—Cymbopogon elegans, *Spreng. syst.* 1, *p.* 289.) ♃. Coromandel Mountains. Fl. and fr. C. S. (*Roxb.*)
3. *prostratus*, L. (Anthistiria prostrata, *Willd.*;—*Roxb. fl. ind* 1, *p.* 250; *ed. Carey*, 1, *p* 254.—Cymbopogon grandulosus, *Spreng. syst.* 1, *p.* 289.) ⊙ Peninsula of India. In H. C. G. fl. and fr. C. S.
4. *arundinaceus*. (Anthisteria arundinacea, *Roxb. fl. ind.* 1, *p.* 251; *ed. Carey*, 1, *p.* 256.—Cymbopogon arundinaceus, Schult.) ♃. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
5. *Schoenanthus*, L. (*Roxb. fl. ind.* 1, *p.* 274; *ed. Carey*, 1, *p.* 278;—*Wall. pl. as. rar.* 3, *t.* 280;—*J. Grah. Cat. B. pl. p.* 238.—Cymbopogon Schoenanthus, *Spreng. syst. l. c.*;—*Rheed.* 12, *t.* 72.—*Rumph.* 5, *t.* 72, *f.* 2.) গন্ধ বেণা *Gundho-bena. Lemon-grass.* ♃. Cultivated in gardens, but very seldom flowering. In the North of

Bengal large tracts of waste land are covered with this grass. (*Carey.*) The fresh leaves are much used as a substitute for tea. The white succulent centre of the leaf-bearing culms is often put into curries, to give them an agreeable flavour. (*Roxb.*) The natives of the Moluccas extract a pleasant tasted essential oil from the leaves. (*Carey.*)

6. *Martini*, Roxb. (*fl. ind.* 1, *p.* 277; *ed. Carey*, 1, *p.* 280.—A. nardoïdes, *Nees. ?*—A. Calamus aromaticus, *Royle. ?*) ♃. Central India extending north as far as Delhi, and south to between the Godavery and Nagpore. In H. C. G. fl. R. S.; fr. C. S. This grass has a strong aromatic and pungent taste, so that not only the flesh of the animals (which eat it voraciously) but also the milk and butter, have a very powerful scent of it. (*General Martin.*) It yields the fragrant *grass-oil of Namaur*.

7. *Iwarancusa*, Blane. (*Roxb. fl. ind.* 1, *p.* 275; *ed. Carey*, 1, *p.* 279.) ♃. Hurdwar. Kheree Pass. Fl. and fr. C. S. Comes remarkably near A. Schoenanthus both in habit and taste. (*Roxb.*)

8. *Nardus*, Röttl. ? (*Spreng. syst.* 1, *p.* 287;—*Roxb. H. B. p.* 7.) ♃. Courtallum. Tinnevelly. In H. C. G. fl. R. S.; fr. C. S. Ainslie calls this grass ginger, or spice-grass, and says that the natives use its infusion as a stomachic, and occasionally prepare from it an essential oil useful in rheumatism. (*Royle.*) It is not mentioned in Roxb. fl. ind. but it is, evident that Dr. Carey, in H. B. l. c. took it to be A. Iwarancusa, Bl. which it perhaps may be.

9. *glaber*. Roxb. (*fl. ind.* 1, *p.* 267; *ed. Carey*, 1, *p.* 271;—*Spreng. syst.* 1, *p.* 288. ♃. Elevated parts of Bengal. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

10. *punctatus*, Roxb. (*fl. ind.* 1, *p.* 264; *ed. Carey*, 1, *p.* 268;—*Spreng. syst.* 1, *p.* 288.) ⊙ Bengal, (Serampore.) Fl. C. S.; fr. H. S.

11. *Bladhii*. Retz.) *Roxb. fl. ind.* 1, *p.* 259; *ed. Carey*, 1, *p.* 263;—*Spreng*, 1, *p.* 286.) লোয়াড়ি *Loari*. ⊙ Bengal, (Serampore.) Fl. C. S.; fr. H. S.

12. *pertusus*, Willd. (*Spreng. syst.* 1, *p.* 286.—*R. Br. pr.* 1, *p.* 202;—*Roxb. fl. ind.* 1, *p.* 258; *ed. Carey*, 1, *p.* 263—Holcus pertusus, *Kön.; L. Mant.*) ⊙ Bengal, Peninsula of India. New Holland. Fl. C. S.; fr. H. S.

13. *scandens*, Roxb. (*fl. ind.* 1, *p.* 258; *ed. Carey*, 1, *p.* 262.—*Spreng. syst.* 1, *p.* 286;—*J. Grah. Cat. B. pl. p.* 238.) ♂ ⌣ Bengal, Peninsula of India. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

14. *trispicatus*, Schult. (A. tristachys, *Roxb. fl. ind.* 1, *p.* 257; *ed. Carey*, 1, *p.* 261; not Humb.) ⊙ Bengal, (Serampore.) Fl. C. S.; fr. H. S.

15. *Roxburghianus*, Schult. (A. filiformis, *Roxb. fl. ind.* 1, *p.* 256; *ed. Carey*, 1, *p.* 260; not Pers.) ⊙ Bengal. (Serampore.) Fl. C. S.; fr. H. S.

16. *conjugatus*, Roxb. (*fl. ind.* 1, *p.* 255; *ed. Carey*, 1, *p.* 260.—Saccharum conjugatum, *Spreng.* 1, *p.* 283.) ⊙ Bengal, (Serampore.) Fl. C. S.; fr. H. S.

17. *binatus*, Retz. (*Roxb. fl. ind.* 1, *p.* 255; *ed. Carey*, 1, *p.* 259.) ⊙ Bengal. In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*)

18. *miliformis*, Schult. (A. miliaceus, *Roxb. fl. ind.* 1, *p.* 272; *ed. Carey*, 1, *p.* 276; not Forsk.) ♃. Lucknow. In H. C. G. fl. during the latter part of the R. S. (*Roxb.*)

ANTHISTIRIA, L. (*Endl. gen. pl.* 1, *p.* 107.)

1. *ciliata*, Retz. (*Gärtn. fr.* 2, *p.* 465, *t.* 175;—*Spreng. syst.* 1, *p.* 54. *c. p.* 337;—*Roxb. fl. ind.* 1, *p.* 247; *ed. Carey*, 1, *p.* 251;—*J. Grah. Cat. B. pl. p.* 239.) ⊙ In H. C. G. fl. C. S.; fr. H. S. (*Roxb.*) This grass grows most abundantly throughout the Concans, and is commonly converted into hay for feeding horses. (*J. Grah.*)

2. *polystachya*, Roxb. (*fl. ind.* 1, *p.* 248; *ed. Carey*, 1, *p.* 252;—*Spreng. syst.* 1, *p.* 291.) ⊙ Bengal. Fl. C. S.; fr. H. S.

3. *scandens*, Roxb. (*fl. ind.* 1, *p.* 248; *ed. Carey*, 1, *p.* 253;—*Spreng. syst.* 1, *p.* 291.) ♃. ⌣ Bengal, (Serampore.) Fl. C. S.; fr. H. S.

4. *heteroclita*, Roxb. (*fl. ind.* 1, *p.* 249; *ed. Carey*, 1, *p.* 253.—*Spreng. syst.* 1, *p.* 291.) ⊙ Bengal, (Serampore.) Fl. and fr. C. S.

APLUDA, L. (*Endl. gen. pl.* 1, *p.* 108.)

1. *aristata*, L. (*Spreng. syst.* 1, *p.* 290;—*Roxb. fl. ind.* 1, *p.* 324; *ed. Carey*, 1, *p.* 326;—*J. Grah. Cat. B. pl. p.* 239.) চুণ খড়কী *Choonkhurkee.* ♃. Bengal, (Serampore.) Peninsula of India, &c. Fl. C. S.; fr. H. S.

2. *geniculata*, Roxb. (*fl. ind.* 1, *p.* 325; *ed. Carey*, 1, *p.* 327.) ♃. Bengal, (Serampore.) Fl. C. S.; fr. H. S.

D. ROTTBÖLLEÆ, Nees; Lindl. Nat. Syst. p. 378.

ISCHÆMUM, L. (*Endl. gen. pl.* 1, *p.* 108.)

1. *aristatum*, L. (*Spreng. syst.* 1, *p.* 297.—*Roxb. fl. ind.* 1, *p.* 319; *ed. Carey*, 1, *p.* 321;—*J. Grah. Cat. B. pl. p.* 239.) মেলেঞ্চা *Melencha.* ⊙ Bengal, Peninsula of India. Fl. and fr. C. S.

2. *rugosum*, Salisb. (*Stirp. rar.* 1, *t.* 1;—*Spreng. syst.* 1, *p.* 297;—*Roxb. fl. ind.* 1, *p.* 320; *ed. Carey*, 1, *p.* 322;—*J. Grah. Cat. B. pl. p.* 239.) ⊙ Bengal, Peninsula of India. Fl. and fr. C. S.

HEMARTHRIA, R. Br. (*pr.* 1, *p.* 207;—*Endl. gen. pl.* 1, *p.* 105.)

1. *compressa*, R. Br. (*l. c.*—Rottbölla compressa, *L.*;—*Spreng. syst.* 1, *p.* 299;—*Roxb. Corom.* 2, *t.* 156; *fl. ind.* 1, *p.* 354; *ed. Carey*, 1, *p.* 354;—*J. Grah. Cat. B. pl. p.* 233.) পানী শিড়া *Panie-shira.* ♃. ⌣ Borders of tanks, &c. in Bengal and the Peninsula of India.

THYRIDOSTACHYUM, Nees. (Mnesithea, *Kth.*;—*Endl. gen. pl.* 1, *p.* 105.)

1. *perforatum*, Nees. (Rottbölla perforata, *Roxb. Corom.* 2, *t.* 182; *fl. ind.* 1, *p.* 356; *ed. Carey*, 1, *p.* 356;—*Spreng. syst.* 1, *p.* 300;—*J. Grah. Cat. B. pl. p.* 234.) কর্কী *Kurkkeer.* ♃. Bengal. Peninsula of India. Fl. R. S.

OPHIURUS. Gärtn. (*Endl. gen. pl.* 1, *p.* 105.)

1. *incurvatus*, Beauv. (Rottbölla incurvata, *L.*;—*Spreng. syst.* 1, *p.* 299;—*E. B.* 11, *t.* 760.) ⊙ England. Middle Europe. Fl. C. S.

2. *corymbosus*, Gärtn. (*Carpol.* 3, *p.* 4.—*R. Br. pr. p.* 207.—Rottböllа corymbosa, *L. fil.*;—*Roxb. fl. ind.* 1, *p.* 355; *ed. Carey*, 1, *p.* 355; *Corom.* 2, *t.* 181.—*J. Grah. Cat. B. pl. p.* 233.—Ægilops exaltata, *Retz.*—Rottböllа punctata, *Retz.*) ⊙ Peninsula of India. Tropical New Holland. Fl. R. S.

ROTTBÖLLA, L. (*Endl. gen. pl.* 1, *p.* 105.)

1. *exaltata*, L. (*Roxb. Corom.* 2, *t.* 157; *fl. ind.* 1, *p.* 354; *ed. Carey*, 1, *p.* 354;—*Spreng. syst.* 1, *p.* 300.—*J. Grah. Cat. B. pl. p.* 233; —*R. Br. pr. p.* 206.—Stegosia cochinchinensis, *Lour.* বড় শুঁটী *Buro-shoonti.* ⊙ Bengal, (Serampore.) Peninsula of India. New Holland. Cochin China. Fl. R. S.

2. *glabra*, Roxb. (*fl. ind.* 1, *p.* 353; *ed. Carey*, 1, *p.* 353;—*Spreng. syst.* 1, *p.* 300.) বাকসা *Buksa.* ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S. Cattle are fond of this grass. (*Roxb.*)

PELTOPHORUS, Beauv. (Manisuris, *L.*;—*Endl. gen. pl.* 1, *p.* 106.)

1. *granularis*, Beauv. (Manisuris granularis, *Swz.*;—*Spreng. syst.* 1, *p.* 301;—*Roxb. Corom* 2, *t.* 118; *fl. ind.* 1, *p.* 352; *ed. Carey*, 1, *p.* 352;—*J. Grah. Cat. B. pl. p.* 234.) ⊙ Peninsula of India. W. Indies. Tropical America, &c. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)

2. *Myurus*, Beauv. (Manisuris myurus, *L.*;—*Roxb. Corom.* 2, *t.* 117; *fl. ind.* 1, *p.* 351; *ed. Carey*, 1, *p.* 352;—*Spreng. syst.* 1, *p.* 301.) ⊙ Coromandel. Fl. R. S.

OROPETIUM, Trin. (*Spreng. syst.* 1, *p.* 131, *No.* 246.)

1. *thomæum*, Trin. (*Spreng. syst.* 1, *p.* 139.—Nardus thomæa, *L.*—Rottböllа thomæa, *Willd.*;—*Roxb. Corom.* 2, *t.* 132; *fl. ind.* 1, *p.* 357; *ed. Carey*, 1, *p.* 357;—*J. Grah. Cat. B. pl. p.* 234.—R. pilosa, *Willd.*) ⊙ Peninsula of India, growing on old walls. Fl. R. S.

ZOYSIA, Willd. (*Endl. gen. pl.* 1, *p.* 106.)

1. *pungens*, Willd. (*Spreng. syst.* 1, *p.* 239;—*R. Br. pr. p.* 208.—Agrostis Matrella, *L.*;—*Roxb. fl. ind.* 1, *p.* 317; *ed. Carey*, 1, *p.* 319;—*J. Grah. Cat. B. pl. p.* 235.—Matrella juncea, *Pers.*; excl. Agrostis juncea. Lam.) ♃. Bengal, (Serampore.) Peninsula of India. New Holland. C. G. H. Fl. R. S.; fr. C. S.

E. OLYREÆ, Nees;—*Lindl. Nat. Syst. p.* 378.

ZEA, L. (*Endl. gen. pl.* 1, *p.* 80.)

1. *Mays*, L. (*Spreng. syst.* 1, *p.* 238;—*Beauv. agrost p.* 136, *t.* 24, *f.* 3;—*Roxb. fl. ind.* 3, *p.* 568;—*J. Grah. Cat. B. pl. p.* 240.—Mays, Zea, *Gärtn. fr.* 1, *p.* 6, *t.* 1, *f.* 9.) মক্কা *Mukka.* ভুট *Bhoot. Maize. Indian Corn.* ⊙ Tropical America. Cultivated all over India, &c. Fl. R. and C. S.; fr. C. S.

COIX, L. (*Endl. gen. pl.* 1, *p.* 80.)

1. *Lacrima*, L. (*Spreng. syst.* 1, *p.* 238.—*B. M.* 51, *t.* 2479;—*Roxb. fl. ind.* 3, *p.* 568;—*J. Grah. Cat. B. pl. p.* 240.—Lithagrostis Lacryma Jobi. *Tournef*;—*Gärtn. fr.* 1, *p.* 7, *t.* 1, *f.* 10;—*Rheed.* 12, *t.* 70;—

Rumph. 5, *t.* 75, *f.* 2.) কাঁচ গড়গড় *Kanch-gurgur. Job's Tears.* ♃. Moluccas. Sunda Islands. Ceylon. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. R. S; fr. C. S.

2. *barbata,* Roxb. (*fl. ind.* 3, *p.* 569.) কাঁটা গড়গড় *Canta-gurgur.* ♃. Circars. Bengal, (Serampore.) Fl. R. S.; fr. C. S.

3. *gigantea,* Kön. (*Roxb. fl. ind.* 3, *p.* 570.) ডাঙ্গা গড়গড় *Danga-gurgur.* ♃. Circars. Bengal, (Serampore.) Fl. R. S.; fr. C. S.

4. *aquatica,* Roxb. (*fl. ind.* 3, *p.* 571.) জল গড়গড় *Jul-gurgur.* ♃. Bengal, (Serampore.) Fl. R. S.; fr. C. S.

5. *heteroclita,* Roxb. (*fl. ind.* 3, *p.* 572.) ♃. Eastern parts of Bengal. Fl. R. S.; fr. C. S. (*Roxb.*)

6. *pumila,* Roxb. (*fl. ind.* 3, *p.* 572.) ♃. Mauritius. Fl. R. S.; fr. C. S. (*Roxb.*)

F. Phleæ, (Phleoideæ, *Nees.*;—*Lindl. Nat. syst. p.* 378.)

Phleum, L. (*Endl. gen. pl.* 1, *p.* 81.)

1. *Böhmeri,* Wib. (*Spreng, syst.* 1, *p.* 242.—Phalaris phleoides, *L.*;—*E. B.* 7, *t.* 459.) ♃. Europe. Fl. C. S.

2. *alpinum,* L. (*Spreng. syst.* 1, *p.* 241;—*E. B.* 8, *t.* 519.) ♃. Alps of Europe. Fl. C. S.

3. *Michelii,* All. (*Spreng. syst.* 1, *p.* 241;—*E. B.* 32, *t.* 2265.) ♃. England. S. Europe. Fl. C. S.

Hygroryza, Nees. (*Edinb. new philos. journ. July* 1833;—*Endl. gen. pl.* 1, *p.* 78.)

1. *ciliata,* Nees. (*l. c.*—Pharus ciliatus, *Retz.*—Leersia ciliata, *Roxb. fl. ind.* 2, *p.* 207.) ⊙ Bengal, (Serampore.) Fl. Sept. Oct. and Nov.; fr. C. S.

Perotis, Ait. (*R. Br. pr. p.* 172;—*Spreng. syst.* 1, *p.* 131, *No.* 247.)

1. *latifolia.* Ait. (*Spreng. syst.* 1, *p.* 239;—*Roxb. fl. ind.* 1, *p.* 233; *ed. Carey,* 1, *p.* 238;—*J. Grah. Cat. B. pl. p.* 237,—*Harvey, gen. of S. African pl. p.* 369.—Anthoxanthum indicum, *L.*—Saccharum spicatum, *L.*—Agrostis spicæformis, *L.*—*Burm. ind. t.* 9, *f.* 3;—*Rheed.* 12, *t.* 62.) ⊙ Peninsula of India. S. Africa. Fl. R. S.

G. Agrostiëæ. (Agrostideæ, *Nees,*;—*Lindl. Nat. syst. p.* 378.)

Chæturus, Lk. (*Endl. gen. pl.* 1, *p.* 90.)

1. *fasciculatus,* Lk. (*Röm. and Sch.* 2, *p.* 324.—Polypogon fasciculatus, *Pers.*—P. subspicatus; *Willd.*—Agrostis articulata, *Brot.*) ⊙ Spain. Portugal. Fl. Feb.

Polypogon, Desf. (*Endl. gen. pl.* 1, *p.* 90.)

1. *monspeliensis,* Desf. (*Röm. and Sch.* 2, *p.* 325.—Phleum monspeliense, *Kol. gram. p.* 57; excl. syn.—Alopecurus monspeliensis, *L.*—Agrostis panicea, *Willd.*;—*E. B.* 24, *t.* 1704.) ⊙ England. France. Italy. Spain. Caucasus. Fl. Feb.

2. *maritimus,* DC. (*Cat. hort. monspel.* (1813,) *p.* 134;—*Röm. and Sch.* 2, *p.* 325.—Phleum crinitum, *Roxb. fl. ind.* 1, *p.* 313; *ed. Carey,* 1, *p.* 316.) ⊙ N. India. Nepal. Fl. C. S.; fr. H. S.

SPOROBOLUS, R. Br. (*pr. p.* 170 ;—*Endl. gen. pl* 1, *p.* 89.)

1. *diander*, R. Br. (*l. c. annot.*—Agrostis diandra, *Retz.*;—*Röm. and Sch.* 2, *p.* 367;—*Roxb. fl. ind.* 1, *p.* 317; *ed. Carey*, 1, *p.* 319.—Vilfa diandra, *Trin.*) বেণা যোনি *Bena-yoni.* ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

2. *tenacissimus*, Beauv. (Agrostis tenacissima, *Willd.*;—*Röm. and Sch.* 2, *p.* 369;—*Roxb. fl. ind.* 1, *p.* 316; *ed. Carey.* 1, *p.* 318.—Vilfa diandra, *H. and B.*; not Trin.) পানী দুর্বা *Panee-doorba.* ♃. Peninsula of India. Bengal, (Serampore.) W. Indies. Fl. R. S.; fr. C. S.

GASTRIDIUM, Beauv. (*Endl. gen. pl.* 1, *p.* 89.)

1. *australe*, Beauv. (*Röm. and Sch.* 2, *p.* 342.—Milium lendigerum, *Schreb*;—*E. B.* 16, *t.* 1107.—Agrostis australis, *L.*) ⊙ Shores of the Mediterranean. Fl. Feb.

AGROSTIS, L. (*Endl. gen. pl.* 1, *p.* 89.)

1. *stolonifera*, L. (*E. B.* 22, *t.* 1532?) ♃. Greece. S. Europe. N. America. Fl. Feb. and March.

2. *diffusa*, Host. (*Gram.* 4, *p.* 32, *t.* 55;—*Röm. and Sch.* 2, *p.* 344.) ♃. Meadows and river banks of Europe. Fl. Feb.

H. STIPEÆ, Nees. (*Lindl. Nat. Syst. p.* 378.)

CHÆTARIA, Beauv. (*Lindl. Nat. Syst. p.* 381.)

1. *Hystrix.* Beauv. (Aristida Hystrix, *L*;—*Spreng. syst.* 1, *p.* 267;—*Roxb. fl. ind.* 1, *p.* 350; *ed Carey*, 1, *p.* 351;—*J. Grah. Cat. B. pl. p.* 235.) ♃. Peninsula of India. Fl. R. S.

I. ORYZEÆ, Nees. (*Lindl. Nat. Syst. p.* 378.)

ORYZA, L. (*Endl. gen. pl.* 1, *p.* 78.)

1. *sativa*, L. (*Mill. ill. t.* 19;—*Lam. ill. t.* 264;—*Spreng. syst.* 2, *p.* 136;—*Roxb. fl. ind.* 2, *p.* 200;—*J. Grah. Cat. B. pl. p.* 235;—*Gärtn. fr.* 2, *p.* 5, *t.* 80, *f.* 5.) ধান *Dhan. Rice.* ⊙ Cultivated. Fl. R. S.; fr. C. S.

POTAMOCHLOA, Griff. (*Journ. as. soc. vol.* 5, *p.* 571.)

1. *Retzii*, Griff. (*l. c. t.* 24.—Pharus aristatus, *Retz.*—Leersia aristata, *Roxb. fl. ind.* 2, *p.* 207;—*J. Grah. Cat. B. pl. p.* 235.—Zizania? aristata, *Kth.*—Hygroryza aristata, *Nses.*; *Edinb. n. philos. journ. July* 1833;—*Rheed.* 10, *t.* 12.) জঙ্গলী দাল *Junglee-dal.* ⊙ Margins of tanks, lakes, &c. Bengal, (Serampore.) Peninsula of India. Fl. R. S.; fr. C. S.

K. PAPPOPHOREÆ, Kth. (*Lindl. Nat. Syst. p.* 378.)

POMMEREULLA, L. fil. (*Spreng. syst.* 1, *p.* 136, *No.* 332.)

1. *Cornucopiæ*, L. (*Spreng. syst.* 1, *p.* 328;—*Roxb. Corom.* 2, *t.* 131; *fl. ind.* 1, *p.* 331; *ed. Carey*, 1, *p.* 332.) ⊙ Coromandel. Has been introduced into H. C. G.?

L. CHLORIËÆ. (Chlorideæ. *Nees.*;—*Lindl. Nat. Syst. p.* 378.)

CHLORIS, Swz. (*Endl. gen. pl.* 1, *p.* 93.)

1. *barbata*, Swz. (*Röm. and Sch.* 2, *p.* 608;—*Jacq. ecl. gram. fasc.* 1, *p.* 10, *t.* 8;—*Roxb. fl. ind.* 1, *p.* 329; *ed. Carey*, 1, *p.* 331;—*J. Grah.*

Cat. B. pl. p. 234.—Andropogon barbatus, *L. mant.*—*Rheed.* 12, *t.* 51.) 2. Peninsula of India. Bengal, (Serampore,) &c. Fl. and fr. throughout the year.

CYNODON, Rich. (*Endl. gen. pl.* 1, *p.* 92.)

1. *Dactylon*, Pers. (*Röm. and Sch.* 2, *p.* 400;—*R. Br. pr. p.* 187.—Panicum Dactylon, *L.*;—*E. B.* 12, *t.* 850;—*Roxb. fl. ind.* 1, *p.* 289; *ed. Carey*, 1, *p.* 292;—*J. Grah. Cat. B. pl. p.* 236) দুর্ব্বা *Doorbba.* 2. England. S. Europe. Caucasus. S. Africa. New Holland. Both Peninsulas of India. Bengal, (Serampore,) &c. Fl. and fr. throughout the year. This most valuable grass forms three-fourths of the sole food of horses and cows in India. (*Roxb.*)

2. *filiformis*, (Cynodon elongatus, *Trin.*;—*Röm. and Sch. mant.*—Digitaria elongata, *Spreng. syst.* 1, *p.* 171.—Aira filiformis, *Kön.*;—*Roxb. fl. ind.* 1, *p.* 326; *ed. Carey*, 1, *p.* 328;—*J. Grah. Cat. B. pl. p.* 235.) ছোট পিনে নটী *Chhoto-pine-nutee.* ⊙ Peninsula of India. Bengal, (Serampore.) Fl. R. S.

MICROCHLOA, R. Br. (*pr. p.* 208.)

1. *setacea*, R. Br. (*l. c.*—Nardus indica, *L.*—Rottbölla setacea, *Roxb. Corom.* 2, *t.* 132; *fl. ind.* 1, *p.* 357; *ed. Carey*, 1, *p.* 357;—*J. Grah. Cat. B. pl. p.* 233.) ⊙ Peninsula of India, on old walls. Fl. R. S.

DACTYLOCTENIUM, Willd. (*Endl. gen. pl.* 1, *p.* 93.)

1. *ægyptiacum*, Beauv. (*Röm. and Sch.* 2, *p.* 583.—Cynosurus ægyptius, *L.*; *Willd.* excl. syn. Pluk.—Eleusine ægyptiaca *Pers.*; excl. syn. Lam.;—*Roxb. fl. ind.* 1, *p.* 344; *ed. Carey*, 1, *p.* 345;—*J. Grah. Cat. B. pl. p.* 235;—*Rheed.* 12, *t.* 69;—*Rumph.* 6, *t.* 4, *f.* 1.) মাকড় জালী *Makur-jalee.* ⊙ Tropical America. Africa. Moluccas. Both Peninsulas of India. Bengal, (Serampore.) Fl. and fr. nearly throughout the year. Cattle are fond of this grass. (*Roxb.*)

ACRACHNE, Wight. and Arn. (*Lindl. Nat. syst. p.* 381.)

1. *verticillata*, W. and A. (Eleusine verticillata, *Roxb. fl. ind.* 1, *p.* 346; *ed. Carey*, 1, *p.* 346;—*Spreng. syst.* 1, *p.* 351.) ⊙ Peninsula of India. Fl. R. S.

ELEUSINE, Gärtn. (*Endl. gen. pl.* 1, *p.* 93.)

1. *Coracana*, Gärtn. (*fr.* 1, *p.* 8, *t.* 1, *f.* 11;—*Lam. ill.* 1, *p.* 203, *t.* 48, *f.* 1;—*Röm. and Sch.* 2, *p.* 581;—*Roxb. fl. ind.* 1, *p.* 342; *ed. Carey*, 1, *p.* 343;—*J. Grah. Cat. B. pl. p.* 235.—Cynosurus Coracanus, *L.*—*Rheed.* 12, *t.* 78;—*Rumph.* 5, *t.* 76, *f.* 2.) মারুয়া *Murooa.* ⊙ Cultivated. Fl. R. S.; fr. C. S.

2. *stricta*, Roxb. (*fl. ind.* 1, *p.* 343; *ed. Carey*, 1, *p.* 344.) Hind. *Raggee.* ⊙ Cultivated. Fl. R. S.; fr. C. S. This is still more cultivated than the last, and differs from it only in having the spikes straight, being generally of a larger size, and more productive. The great weight of the seed when full grown, bends the spikes down into a horizontal direction. A variety of this grows to a still larger size, with a greater number of straight spikes. (*Roxb.*)

3. *indica*, Gärtn. (*fr.* 1, *p.* 8.—*Röm. and Sch.* 2, *p.* 582, excl. syn. Rheed.;—*Roxb. fl. ind.* 1, *p.* 345; *ed. Carey*, 1, *p.* 346;—*J. Grah. Cat. B. pl. p.* 235, excl. syn. Rheed. and Rumph.—Cynosurus indicus, *L.*—Panicum compressum. *Forsk.*,—*Burm. zeyl. t.* 47, *f.* 1.) মাল আঁকড়া *Mal-ankura.* ⊙ Ceylon. Peninsula of India. Bengal, (Serampore,) &c. Egypt. W. Indies. Fl. and fr. nearly throughout the year.

4. *calycina*, Roxb. (*fl. ind.* 1, *p.* 346; *ed. Carey*, 1, *p.* 347;—*Spreng. syst.* 1, *p.* 351.) ⊙ Coromandel. Fl. R. S.; fr. C. S.

LEPTOCHLOA, Beauv. (*Endl. gen. pl.* 1, *p.* 93.)

1. *domingensis*, Lk. (Poa domingensis, *Pers.*;—*Röm. and Sch.* 2, *p.* 558.) ♃. St. Domingo. Fl. R. S.; fr. C. S.

M. AVENEÆ, Nees.;—(*Lindl. Nat. Syst. p.* 378.)

CORYNEPHORUS, Beauv. (*Endl. gen. pl.* 1, *p.* 95.)

1. *canescens*, Beauv. (*Röm. and Sch.* 2, *p.* 688.—Aira canescens, *L.*;—*E. B.* 17, *t.* 1190.) ♃. Europe. Fl. C. S.

DESCHAMPSIA, Beauv. (*Endl. gen. pl.* 1, *p.* 95.)

1. *cæspitosa*. Beauv. (*Röm. and Sch.* 2, *p.* 685.—Aira cæspitosa, *L.*;—*E. B.* 21, *t.* 1453.) ♃. Europe. Fl. C. S.

AIRA, L. (*Endl. gen. pl.* 1, *p.* 96.)

1. *flexuosa*, L. (*Röm. and Sch.* 2, *p.* 678;—*E. B.* 22, *t.* 1519.) ♃. Europe. America. Fl. R. S.

2. *caryophyllea*, L. (*Röm. and Sch.* 2, *p.* 681;—*E. B.* 12, *t.* 812.) ⊙ Europe. Fl. Feb.

LAGURUS, L. (*Endl. gen. pl.* 1, *p.* 96.)

1. *ovatus*, L. (*Röm. and Sch.* 2, *p.* 401;—*E. B.* 19, *t.* 1334.) ⊙ S. and W. Europe. Shores of W. Asia. Fl. Feb.

TRISETUM, Pers. (*Endl. gen. pl.* 1, *p.* 96.)

1. *pubescens*, Röm. and Sch. (*syst.* 2, *p.* 662.—Avena pubescens, *L.*;—*E. B.* 23, *t.* 1640.) ♃. Europe. Fl. C. S.

AVENA, L. (*Endl. gen. pl.* 1, *p.* 96.)

1. *præcox*, Beauv. (*Röm. and Sch.* 2, *p.* 667.—Aira præcox, *L.*;—*E. B.* 18, *t.* 1296.) ⊙ Europe. Fl. Feb.

2. *sativa*, L. (*Röm. and Sch.* 2, *p.* 668;—*Host. gram.* 2, *t.* 59;—*Roxb. H. B. p.* 9.) *Common Oats.* ⊙ Juan Fernandez? Cultivated. Fl. and fr. C. S.

3. *orientalis*, Schreb. (*Röm. and Sch.* 2, *p.* 669;—*Host. gram.* 3, *t.* 44.) ⊙ Hungary. Austria. Cultivated. Fl. Feb.

4. *fatua*, L. (*Röm. and Sch.* 2, *p.* 669;—*E. B.* 31, *t.* 2221.) ⊙ Europe. N. W. India. Fl. Feb. and March.

N. ARUNDEÆ. (Arundineæ, *Nees.*;—*Lindl. Nat. Syst. p.* 378.)

DONAX, Beauv. (*Endl. gen. p.* 1, *p.* 91; under Arundo.)

1. *arundinaceus*, Beauv. (*Röm. and Sch.* 2, *p.* 600.—Arundo Donax, *L.*) β. versicolor. (Arundo versicolor, *Mill. dict. No.* 3.) *Gardener's garters.* ♃ France. Italy. Spain. Portugal. Has been cultivated here for many years, without fl.

AMPHIDONAX, Ness. (*Lindl. Nat. syst. add. p.* 449, *No.* 79;—*Endl. gen. pl.* 1, *p.* 91.)

1. *bengalensis*, Ness. (*Lindl. l. c.*—Arundo bengalensis, *Retz;—Roxb. fl. ind.* 1, *p.* 348; *ed. Carey*, 1, *p.* 349.—Donax bengalensis, *Beauv.;—Röm. and Sch.* 2, *p.* 600.—Aira bengalensis, *Gmel.*) গাব নল *Gab-nul.* 4. Bengal, (Serampore.) Fl. R. and C. S.; fr. C. S.
2. *Karka*, Lindl. (*Nat. Syst. p.* 382.—Arundo Karka, *Retz.;—Roxb. fl. ind.* 1, *p.* 347; *ed. Carey*, 1, *p.* 348;—*J. Grah. Cat. B. pl. p.* 236.—A. Roxburghii, *Kth.*—Trichoon Karka, *Roth.;—Röm. and Sch.* 2, *p.* 382.—Calamagrostis Karka, *Gmel.*) নল *Nul.* দরমা *Durma.* 4. Peninsula of India. Bengal, (Serampore,) &c. Fl. R. and C. S.; fr. C. S. The common Durma-mats are made of the stalks, split open. Vessels from the port of Calcutta are generally dunnaged with them. (*Roxb.*)
3. *bifaria*, Lindl. (*l. c.*—Arundo bifaria, *Retz.;—Roxb. fl. ind.* 1, *p.* 347; *ed. Carey*, 1, *p.* 347.) অনল *Unul.* 4. Circars. Bengal, (Serampore.) Fl. R. and C. S.; fr. C. S.

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5. *Arundo gigantea*, W. Hamilt. (*Roxb. H. B. p.* 8.) Introduced into H. C. G. in 1809, where it flowered R. and C. S.; fr. C. S. (*Roxb.*)

O. TRITICEÆ, Nees.;—(*Lindl. Nat. Syst. p.* 378.)

HORDEUM, L. (*Endl. gen. pl.* 1, *p.* 104.)

1. *vulgare*, L. (*Röm. and Sch.* 2, *t.* 791;—*Roxb. H. B. p.* 9.) *Spring Barley.* ⊙ Native place unknown. Fl. C. S.; fr. Feb. and March.
2. *hexastichon*, L. (*Röm. and Sch. l. c.;—Host. gram.* 3, *t.* 35;—*Gärtn. fr.* 2, *p.* 10, *t.* 81, *f.* 3;—*Roxb. fl. ind.* 1, *p*, 358; *ed. Carey*, 1, *p.* 358;—*J. Grah. Cat. B. pl. p.* 234.) যব *Juvo. Common Barley.* ⊙ Native place unknown. Much cultivated in India. Fl. C. S.; fr. Feb. and March.
3. *jubatum*, L. (*Röm. and Sch.* 2, *p.* 792.) ♂ N. America. Fl. C. S.
4. *distichon*, L. (*Röm. and Sch.* 2, *p.* 793;—*Gärtn. fr.* 2, *p.* 10;—*Host. gram.* 3, *t.* 36.—Zeocritum distichon, *Beauv.*) ⊙ Tartary. Much cultivated in Europe. Fl. C. S.; fr. Feb. and March.
5. *murinum*, L. (*Röm. and Sch. l. c.;—E. B.* 28, *t.* 1971.) ⊙ Europe. Fl. C. S.
6. *maritimum*, With. (*Röm. and Sch.* 2, *p.* 795;—*E. B.* 17, *t.* 1205.) ⊙ Shores of Europe and W. Asia. Fl. C. S.

LOLIUM, L. (*Endl. gen. pl.* 1, *p.* 103.)

1. *temulentum*, L. (*Röm. and Sch.* 2, *p.* 749;—*E. B.* 16, *t.* 1124.) *Bearded Darnel.* ⊙ Europe. Fl. Feb. and March. The seeds of this grass are reported to be intoxicating to men, beasts, and birds, and even to bring on convulsions and death. (*Sm.*)

TRITICUM, L. (*Endl. gen. pl.* 1, *p.* 103.)

1. *Spelta*, L. (*Röm. and Sch.* 2, *p.* 767;—*Host. gram.* 3, *t.* 30.) ⊙ Native place unknown. Fl. Feb.

2. *vulgare*, Vill. (*Spreng. syst.* 1, *p.* 323.) *Common Wheat.* ⊙ Native place unknown.

α. *æstivum*, (T. æstivum, *Lag.*;—*Röm. and Sch.* 2, *p.* 761;—*Host. gram.* 3, *t.* 26;—*Roxb. fl. ind.* 1, *p.* 359; *ed. Carey*, 1, *p.* 359;—*J. Grah. Cat. B. pl. p.* 234.) গম *Gom.* Fl. C. S.; fr. Feb. and March.

β. *hybernum.* (T. hybernum, *Lag.*;—*Röm. and Sch.* 2, *p.* 763;—*Host. gram.* 3, *t.* 26, *f.* 8;—*Gärtn. fr.* 2, *p.* 8, *t.* 81, *f.* 1;—*Roxb. l. c.*) Fl. C. S.; fr. Feb. and March.

Two varieties of α. and as many of β. are cultivated in N. India during the cold season.

3. *campestre*, Kit. (*Röm. and Sch.* 2, *p.* 769.—Secale sylvestre, *Host.* 4, *t.* 2.) ♂. Hungary. Fl. Feb.

ÆGILOPS, L. (*Endl. gen. pl.* 1, *p.* 104.)

1. *ovatus*, L. (*Röm. and Sch.* 2, *p.* 771;—*Gärtn. fr.* 2, *p.* 467, *t.* 175;—*Host. gram.* 2, *t.* 5;—*Sibth. and Sm. fl. gr.* 1, *p.* 74, *t.* 93.) ⊙ ♂. S. Europe. Fl. Feb. and March.

2. *triuncialis*, L. (*Röm. and Sch.* 2, *p.* 772;—*Schreb. gram. p.* 80, *t.* 10, *f.* 1.) ⊙ S. Europe. Levant. Fl. Feb. and March.

SECALE, L. (*Endl. gen. pl.* 1, *p.* 103.)

1. *cereale*, L. (*Röm. and Sch.* 2, *p.* 773;—*Gärtn. fr.* 2, *p.* 9, *t.* 81, *f.* 2.) *Rye.* ⊙ Native place unknown. Fl. Feb. and March.

ELYMUS, L. (*Endl. gen. pl.* 1, *p.* 103.)

1. *geniculatus*, L. (*Amoen.* 7, *p.* 192, *t.* 2, *f.* 5;—*Röm. and Sch.* 2, *p.* 774;—*E. B.* 23, *t.* 1586.) ♃. Shores of England, near Gravesend. Fl. C. S.

2. *glaucifolius.* Mühlenb. (*Röm. and Sch.* 2, *p.* 776.) ♃. Virginia. Pennsylvania. Fl. C. S.

P. FESTUCEÆ, Nees.;—(*Lindl. Nat. Syst. p.* 378.)

POA, L. (*Endl. gen. pl.* 1, *p.* 98, comprehending Eragrostis, *Beauv.*)

1. *nutans*, Kön. (*Röm. and Sch.* 2, *p.* 568;—*Roxb. fl. ind.* 1, *p.* 335; *ed. Carey*, 1, *p.* 336.) ⊙ Coromandel. Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

2. *diarrhena*, Röm. and Sch. (P. diandra, *Roxb. fl. ind.* 1, *p.* 336; *ed. Carey*, 1, *p.* 337; not R. Br.) ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

3. *viscosa*, Retz. (*Röm. and Sch.* 2, *p.* 564;—*Roxb. fl. ind.* 1, *p.* 336; *ed. Carey*, 1, *p.* 337;—*J. Grah. Cat. B. pl. p.* 236.) ⊙ Bengal, (Serampore.) Peninsula of India, &c. It is covered with a tenacious resinous substance, having a very pleasant balsamic scent. (*J. Grah.*)

4. *plumosa*, Retz. (*Röm. and Sch.* 2, *p.* 552.—*Roxb. fl. ind.* 1, *p.* 337; *ed. Carey*, 1, *p.* 338;—*J. Grah. Cat. B. pl. p.* 236;—*Rheed.* 12, *t.* 41;—*Rumph.* 6, *t.* 4, *f.* 3.) ⊙ Moluccas. Peninsula of India. Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

5. *elegantula*, Kth. (Poa elegans, *Roxb. fl. ind.* 1, *p.* 330; *ed. Carey*, 1, *p.* 339; not Poir.) ⊙ Bengal, (Serampore,) &c. Fl. R. S.; fr. C. S.

6. *unioloïdes*, Retz. (*Röm. and Sch.* 2, *p.* 567;—*Roxb. fl. ind.* 1, *p.* 339; *ed. Carey*, 1, *p.* 340;—*J. Grah. Cat. B. pl. p.* 236; excl. syn. except Roxb's.—Uniola indica, *Spreng. syst.* 1, *p.* 349.) কোনী *Konee.* ⊙ Peninsula of India. Bengal, (Serampore.) Fl. and fr. C. S.
7. *Roxburghiana*, Schult. (P. tortuosa, *Spreng. syst.* 1, *p.* 345.—P. flexuosa, *Roxb. fl. ind.* 1, *p.* 339; *ed. Carey*, 1, *p.* 340, not L.) ⊙ Bengal, (Serampore.) Fl. and fr. C. S.
8. *paniculata*, Roxb. (*fl. ind.* 1, *p.* 340; *ed. Carey*, 1, *p.* 341.) ⊙ Bengal, (Serampore.) Fl. and fr. C. S.
9. *gangetica*, Roxb. (*fl. ind.* 1, *p.* 340; *ed. Carey*, 1, *p.* 341;—*Spreng. syst.* 1, *p.* 345.) ⊙ Bengal, (Serampore,) &c. Fl. and fr. C. S.
10. *annua*, L. (*Röm. and Sch.* 2, *p.* 535;—*E. B.* 24, *t.* 1720) ⊙ Europe. N. Africa. Caucasus. Fl. C. S.; fr. H. S. This grass and *No.* 12, are almost the only grasses in England that will thrive in grass plats in towns and small confined situations.
11. *pratensis*, L. (*Röm. and Sch.* 2, *p.* 532;—*E. B.* 15, *t.* 1073.) ♃. Europe. Caucasus. Fl. C. S. One of the best pasture grasses, especially in moist soils.
12. *trivialis*, L. (*Röm. and Sch.* 2, *p.* 534;—*E. B.* 15, *t.* 1072.) ♃. Europe. Caucasus. Fl. C. S.
13. *nemoralis*, L. (*Röm. and Sch.* 2, *p.* 545;—*E. B.* 18, *t.* 1265.) ♃. Europe. Fl. C. S.
14. *digitata*, R Br. (*pr. p.* 182;—*Röm. and Sch* 2, *p.* 574.) ⊙ Port Jackson. Fl. C. S.
15. *cylindrica*, Roxb. (*fl. ind.* 1, *p.* 334; *ed. Carey*, 1, *p.* 335;—*Spreng. syst.* 1, *p.* 347.—Megastachya cylindrica, *Röm. and Sch. mant.*) ⊙ Canton. In H. C. G. fl. R. S.; fr. C. S. (*Roxb.*)
16. *tenella*, L. (*Roxb. fl. ind.* 1, *p.* 337; *ed. Carey*, 1, *p.* 338;—*J. Grah. Cat. B. pl. p.* 236, excl. syn.—Eragrostis tenella, *Beauv.*;—*Röm. and Schult.* 2, *p.* 576.) ⊙ Peninsula of India. Bengal, (Serampore.) Fl. R. S.; fr. C. S.
17. *punctata*, L. (*Röm. and Sch.* 2, *p.* 568;—*Roxb. fl. ind.* 1, *p.* 338; *ed. Carey*, 1, *p.* 339.—Eragrostis punctata, *Röm. and Sch. mant.*) টানা-জিনিয়া *Tanajiniya.* ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S.
18. *multiflora*, Roxb. (*fl. ind.* 1, *p.* 338; *ed. Carey*, 1, *p.* 340.—Eragrostis multiflora, *Trin.*) ⊙ Bengal, (Serampore.) Fl. R. S.; fr. C. S.
19. *cynosuroïdes*, Retz. (*Roxb. fl. ind.* 1, *p.* 333; *ed. Carey*, 1, *p.* 334;—*J. Grah. Cat. B. pl. p.* excl. syn. Rheed.—Eragrostis cynosuroïdes, *Röm. and Sch.*—Uniola bipinnata, *L. sp. p.* 104.—Briza bipinnata, *L. amoen. acad.* 4, *p.* 450.) কুশ *Koosh.* ♃. Peninsula of India. Bengal, (Serampore.) Egypt, &c. Fl. R. S.; fr. C. S. Used by the Brahmuns in their religious ceremonies.
20. *chinensis*, Retz. (*Spreng. syst.* 1, *p.* 338;—*Roxb. fl. ind.* 1, *p.* 332; *ed. Carey*, 1, *p.* 333;—*J. Grah. Cat. B. pl p.* 236.) বড় পিনি নটী

Buro-pini-nutee. ⊙ Peninsula of India. Bengal, (Serampore.) China. Fl. R. S.; fr. C. S.

Briza, L. (*Endl. gen. pl.* 1, *p.* 99.)

1. *maxima*, L. (*Röm. and Sch.* 2, *p.* 521;—*B. M.* 10, *t.* 357.) ⊙ S. Europe. Fl. C. S.
2. *geniculata*, Thunb. (*Röm. and Sch.* 2, *p.* 520.) ⊙ C. G. H. Fl. C. S.
3. *virens*, L. (*Röm. and Sch. l. c.*) ⊙ S. France. Spain. Levant. Fl. C. S.
4. *minor*, L. (*Röm. and Sch.* 2, *p.* 519;—*E. B.* 19, *t.* 1316.) ⊙ England. S. Europe. Fl. C. S.

Melica, L. (*Endl. gen. pl.* 1, *p.* 100.)

1. *uniflora*, Retz. (*Röm. and Sch.* 2, *p.* 524;—*E. B.* 15, *t.* 1058.) 4. Europe. Fl. C. S.

Dactylis, L. (*Endl. gen. pl.* 1, *p.* 100.)

1. *glaucescens*, Willd. (*Röm. and Sch.* 2, *p.* 626.) 4. Venice. Fl. C. S.

Lamarckia, Mönch. (*Endl. gen. pl.* 1, *p.* 101.)

1. *aurea*, Mönch. (Chrysurus cynosuroïdes, *Pers.*;—*Röm. and Sch.* 2, *p.* 806.—Cynosurus aureus, *L.*;—*Sm. and Sibth. fl. gr.* 1, *p.* 62, *t.* 79;—*Host. gram.* 3, *t.* 4.) ⊙ Italy. S. France. Spain. Fl. C. S.

Cynosurus, L. (*Endl. gen. pl. p.* 100.)

1. *echinatus*, L. (*Pers. syn.* 1, *p.* 86;—*E. B.* 19, *t.* 1333.—Chrysurus echinatus, *Beauv.*;—*Röm. and Sch.* 2, *p.* 806.) ⊙ England. S. Europe. Levant. Caucasus. Fl. Feb.

Brachypodium, Rom. and Sch. (*syst.* 2, *p*, 45.)

1. *tenellum*, Rom. and Sch. (*syst.* 2, *p.* 745.—Triticum tenellum, *Lam.* ⊙ S. Europe. Fl. C. S.

Vulpia, Gmel. Lk.

1. *bromoïdes*, Lk. (Mygalurus bromoïdes, *Lk.*—Festuca bromoides, *L.*; *E. B.* 20, *t.* 1411;—*Röm. and Sch.* 2, *p.* 725.) ⊙ S. and W. Europe. Fl. Feb. and March.
2. *Myurus*, Lk. (Mygalurus caudatus, *Lk.*—Festuca Myurus, *L.*;—*Röm. and Sch.* 2, *p.* 726;—*E. B.* 20, *t.* 1412.) ⊙ Europe. Fl. Feb. and March.
3. *uniglumis*, Lk. (Mygalurus uniglumis, *Lk.*—Festuca uniglumis, *Sm.*;—*E. B.* 20, *t.* 1430;—*Röm. and Sch.* 2, *p.* 728.) ⊙ Shores of England and France. Fl. Feb. and March.

Festuca, L. (*Endl. gen. pl.* 1, p. 101.)

1. *ovina*, L. (*Röm. and Sch.* 2, *p.* 714;—*E. B.* 9, *t.* 585.) 4. Europe. Fl. C. S.
2. *flavescens*, Bellard. (*Röm. and Sch.* 2, *p.* 722.) 4. Alps of Piedmont. Fl. C. S.
3. *rubra*, L. (*Röm. and Sch.* 2, *p.* 724;—*E. B.* 29, *t.* 2056.) 4. Europe. Fl. C. S.

BROMUS, L. (*Endl. gen. pl.* 1, *p.* 101.)

1. *secalinus.* L. (*Röm. and Sch.* 2, *p.* 633;—*E. B.* 17, *t.* 1171.) ⊙ Europe. Caucasus. Fl. C. S.
2. *lanceolatus,* Roth. (*Röm. and Sch.* 2, *p.* 639.) ⊙ Canaries. Fl. C. S.
3. *longiflorus,* Willd. (*Röm. and Sch.* 2, *p.* 645.) ♃. Native place unknown. Fl. C. S.
4. *sterilis,* L. (*Röm. and Sch.* 2, *p.* 647;—*E. B.* 15, *t.* 1030.) ⊙ England. S. Europe. Caucasus. Fl. C. S.
5. *matritensis,* L. (*Röm. and Sch.* 2, *p.* 648.—B. diandrus, *Curt.*;—*E. B.* 14, *t.* 1006.) ⊙ S. Europe. Tauria. N. Africa. Fl. C. S.
6. *maximus,* Desf. (*Röm. and Sch.* 2, *p.* 652.—B. matritensis, *Cav. ic. rar.* VI. *p.* 67; not L.) ⊙ Madrid. Fl. C. S.

Q. BAMBUSEÆ, Nees.; (*Lindl. Nat. syst. p.* 378.)

BEESHA, Rheed. (*Endl. gen. pl.* 1, *p.* 103.)

1. *Rheedii,* Kth. (*Gram.* 141;—*Agrost.* 434.—B. baccifera, *Kth. syn. pl. æquinoct.* 1, *p.* 253;—*Schult.* 8, *p.* 1336.—Melocanna bambusoides, *Trin.*;—*Spreng. syst.* 2, *p.* 113, excl. syn. Lour.;—*J. Grah. Cat. B. pl. p.* 240.—Bambusa baccifera, *Roxb. Corom.* 3, *t.* 243; *fl. ind.* 2, *p.* 197.—*Rheed.* 5, *t.* 60.) বিষ বাঁশ *Bish-bansh.* ♄ Peninsula of India. Chittagong Mountains. Fl. R. S.; fr. C. S.

DENDROCALAMUS, Nees. (*Lindl. Nat. Syst. p.* 383.—*Endl. gen. pl.* 1, *p.* 103, *annot,* under Bambusa.)

1. *Balcooa.* (Bambusa Balcooa, *Roxb. fl. ind.* 2, *p.* 196.) ♄ Bengal, (Serampore.) Fl. R. S.; but very seldom. On account of its size and strength, it is reckoned by the bamboo workmen the very best sort for building the houses of the natives, for scaffolding, &c., especially after it has been long immersed in water. (*Roxb.*)

   α. ধুলি বাঁশ *Dhooli-bansh.* Large variety.

   β. বালকু বাঁশ *Balko-bansh.* পলু বাঁশ *Puloo-bansh.* Smaller variety.
2. *Tulda,* (Bambusa Tulda, *Roxb. fl. ind.* 2, *p.* 193.) তলদা বাঁশ *Tulda-bansh.* ♄ Bengal, (Serampore.) Fl. May. This species, the most common in Bengal, is much esteemed by the natives, though considered inferior to *No.* 1, like which it is treated and used in the same manner. The young thick shoots are, when about two feet high, tender and commonly used for pickle. (*Roxb.*)

   β. পীয় বাঁশ *Peea-bansh.* A larger variety used chiefly for scaffolding and building the better and larger sorts of native houses. It differs from *Tulda-bansh* by its greater length and thickness of the joints.

   γ. বাশিনি বাঁশ *Bashini-bansh.* Has a larger cavity, and is used chiefly for making baskets.
3. *strictus* (Bambusa stricta, *Roxb. Corom.* 1, *t.* 80; *fl. ind.* 2, *p.* 193;—*Schult.* 8. *p.* 1339.—Nastus strictus, *Sm. in Rees'. cycl.*) ♄ Coromandel. Fl. H. S. Smaller than the other species, but on account of its great strength, solidity and straightness, much more fit for a variety of uses. The natives make staffs to their spears, &c. of it. (*Roxb.*)

BAMBUSA, Schult. (*Endl. gen. pl.* 1, *p.* 102.)

1. *arundinacea,* Willd. (*Schult. syst.* 8, *p.* 1340;—*Roxb. Corom.* 1, *t.* 79; *fl. ind.* 2, *p.* 191, and *J. Grah. Cat. pl. p.* 239, excl. syn. Rheed.—Bambos arundinacea, *Retz.*—Arundo Bambos, *L. sp. p.* 120, partly.—Nastus arundinaceus, *Sm. in Rees'. cycl.* excl. syn. Rheed.—Arundarbor vasaria s. Bulu Java. *Rumph.* 4, *p.* 8.) বাঁশ *Bansh.* ♄ Mountains of India. Fl. H. S. Use—the same as of the preceding species. In Mysore and S. Concan the seeds are gathered for food by the poorer classes. (*Buch.*)
2. *spinosa,* Roxb. (*fl. ind.* 2, *p.* 198;—*Schult. syst.* 8, *p.* 1342.—Arundo arbor, *L. zeyl. p.* 47.—A. Bambos, *L. spec. in Burm. ind. p.* 30.—Ily, *Rheed.* 1, *t.* 16.—Arundarbor spinosa, *Rumph.* 4, *t.* 2.) বেহুর বাঁশ *Behoor-bansh.* ♄ Bengal, (Calcutta, Serampore,) &c. Fl. June. Grows to a pretty large size, has a smaller cavity than any of the other bamboos, is strong, and consequently adapted for various purposes. (*Roxb.*)
3. *nana,* Roxb. (*fl. ind.* 2, *p.* 199.) ♄ China. Was introduced into H. C. G. in 1794, but had not fl. up to 1814; makes beautiful close hedges. (*Roxb.*)
4. *gigantea,* Wall. (*Rep.*) L. ♄ Burma. Has been cultivated for years in H. C. G. Fl. ?

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* *Degraphis arundinacea,* Trin. (Phalaris arundinacea, L.; E. B. 6, t. 402.) 4. Europe.—*Anthoxanthum odoratum,* L.; E. B. 9, t. 647. 4. Europe.—*Panicum spectabile,* Nees. A gigantic, tender fodder-grass. Brazil.—*Setaria germanica,* Beauv. ⊙ S. Europe. Cultivated as food for horses in Germany and Hungary.—*Orthopogon hirtellus,* R. Br. ⊙ Cultivated as fodder in low and marshy lands of Jamaica.—*Ratzeburgia pulcherrima,* Kth. Wall. pl. as. rar. 3, p. 273. Burma.—*Lygeum Spartum,* L. 4. Spain, used for making ropes, baskets, nets, &c. *Alopecurus pratensis,* L.; E. B. 11, t. 759. 4. Europe. Excellent meadow-grass.—*A. geniculatus,* L.; E. B. 18, t. 1250. 4. Europe.—*Phleum pratense,* L.; E. B. 15, t. 1076. 4. Europe. Good meadow-grass.—*Ammophila arenaria,* Lk. Arundo arenaria, L.; E. B. 8, t. 520. 4. Europe. Used to fix shore-sands against winds and tides.—*Glyceria fluitans,* R. Br. (Poa fluitans, L.; E. B. 22, t. 1520.) 4. Europe. A floating grass, greedily eaten by horses and cattle.—*Hydrochloa aquatica,* Hartm. (Poa aquatica, L.; E. B. 19, t. 1315.) 4. Europe. A good pasture grass forming in England the chief winter's fodder.—*Poa abyssinica,* Ait. ⊙ Grown as a bread-corn in Abyssinia, and furnishes the *teff* bread, that made from wheat being used only by the superior ranks. The dough is allowed to turn sour, and by generating carbonic gas, answers instead of yeast, it is then baked into circular cakes, which are white, spongy, of a hot disagreeable sourish taste, but light of digestion. The same bread, well

toasted, and infused in water for some days, furnishes the *louz*, or common beer of the country. (*Loud.*)—*Elymus arenarius* L.; E. B. 24, t. 1672. 4. Europe. Prevents by its matted roots the shifting of loose sand thrown up by the tides.—*Lolium perenne*, L.; E. B. 5, t. 315. Rye-grass 4. ⊙ Europe. The annual sort well adapted for producing a bulky crop of hay—*Centotheca lappacea*, Desv. Coromandel.—*Windsoria quinquefida*, Lindl. 4. Pennsylvania. A very good fodder grass.

ORDER. CCLVII.—CYPERACEÆ, R. Br.—Lindl Nat. Syst. p. 384.

THE SEDGE TRIBE.

" Plants resembling much those of the last tribe in appearance, though essentially distinguished by many important points of structure. Found in marshes, ditches, and running streams, in meadows, and on heaths, in groves and forests, in the blowing sands of the sea-shore, on the tops of mountains, from the Arctic to the Antarctic circle, wherever phænogamous vegetation can exist. Humboldt remarks, that in Lapland Cyperaceæ are equal to Gramineæ, but that thence, from the temperate zone to the equator, in the northern hemisphere, the proportion of Cyperaceæ to Gramineæ very much diminishes. As we approach the line, the character of the order also changes. Carex, Scirpus, Schænus, and their allies, cease to form the principal mass of the order, their room being usurped by Cyperus, Kyllinga, Mariscus, and the like genera, comparatively unknown in northern regions, or at least not forming any marked feature in the vegetatiom." (*Lindl.*)

The number of Indian Cyperaceæ, by Nees von Essenbeck, described from Lindley's, Royle's, Wallich's, and Wight's Herbaria, amount to 233 species, including nearly all Roxburgh's, viz. 54 of *Cyperus*; 5 of *Papyrus*; 5 of *Mariscus*; 5 of *Kyllinga*; 1 of *Curtoisia*; 1 of *Remirea*; 1 of *Anosporum*; 1 of *Hemicarpha*; 2 of *Lipocarpha*; 1 of *Hypolytrum*; 3 of *Fuirena*; 1 of *Dichostylis*; 4 of *Abildgaardia*; 1 of *Chætocyperus*; 1 of *Echinolytrum*; 21 of *Fimbristylis*; 14 *Trichelostylis*; 13 of *Isolepis*; 1 of *Eleogiton*; 1 of *Malacochæte*; 1 of *Hymenochæte*; 2 of *Eriophorum*; 7 of *Scirpus*; 2 of *Eleogenus*; 3 of *Eleocharis*; 5 of *Limnochloa*; 1 of *Rhynchospora*; 1 of *Morisia*; 1 of *Haplostylis*; 2 of *Cephaloschoenus*; 13 of *Scleria*; 1 of *Cobresia*; 1 of *Cylindropus*; 2 of *Hypoporum*; 1 of *Diplacrum*; 1 of *Trilepis*; 50 (52 Boott.) of *Carex*; and 1 of *Uncinia*,—(*Contributions to Indian Botany, by R. Wight. Lond.* 1834, p. 69-129 *incl.*) Griffith's herbarium comprehends of Cyperaceæ, 80 species from Serampore; 73 from Affghanistan; 70 from Mergui; 50 from Assam; 30 from the Khassya Mountains; 22 from the Mishmee Hills; 20 from Bootan. How many among these may be new forms, we have had no means of ascertaining.

The Cyperaceæ, though so nearly allied to Panicaceæ, differ from them much in utility, inasmuch as the order contains but few plants, which are of any importance, and of these the value depends upon the presence of mucilage and fecula in the roots of a few species, accompanied in others with a little bitterness, and some aromatic principle. (*Royle.*)

A. Cypereæ, Nees.

(*Wight's contrib. p.* 69.)

Cyperus, L. (*Nees in Wight's contrib. l. c.—Endl. gen. pl.* 1, *p.* 119.)

1. *pygmæus*, Vahl. (*Röm. and Sch.* 2, *p.* 174;—*Rottb. gram. t.* 14, *f.* 4, 5?—*Wight's contrib. p.* 72.—C. diffusus, *Roxb. fl. ind.* 1, *p.* 188; *ed. Carey*, 1, *p.* 193; not Vahl.—C. Mulen-pulu, *Schult. mant.* 2, *p.* 99.—C. squarrosus, *Roxb. fl. ind.* 1, *p.* 190; *ed. Carey*, 1, *p.* 194;—*J. Grah. Cat. B. pl. p.* 231; not Rottb.—*Rheed.* 12, *t.* 54.) জালমুটী *Jalmootee.* ⊙ Peninsula of India. Ava. Bengal, (Serampore,) &c. Fl. and fr. R. S.
2. *pumilus*, L. (*Amoen.* 4, *p.* 302, excl. syn. Pluk.;—*Röm. and Sch.* 2, *p.* 188; excl. all the syn. except that of L.—*Wight's contrib. p.* 74; —*Roxb. fl. ind.* 1, *p.* 196, *and ed. Carey*, 1, *p.* 200? excl. syn.—C. membranaceus, *Vahl.;—Röm. and Sch. l. c.*) ⊙ Peninsula of India. Bengal, (Serampore.) Fl. and fr. S. S.
3. *pulvinatus*, Nees and Mey. (*Wight's contrib. p.* 74.—C. punctatus, *Roxb. fl. ind.* 1, *p.* 193; *ed. Carey*, 1, *p.* 197.—*Pluk. t.* 191, *f.* 3; not t. 192, f. 3.) ⊙ Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.
4. *sanguinolentus*, Vahl. (*Röm. and Sch.* 2, *p.* 208;—*Wight. contrib. p.* 75.—C. pumilus, *Gärtn. fr.* 1, *p.* 9, *t.* 2, *f.* 2, excl. syn.—C. cruentus, *Roxb. fl. ind.* 1, *p.* 196; *ed. Carey*, 1, *p.* 200; excl. syn. Rottb. and Willd.—*Retz. obs.* 5, *p.* 13;—*J. Grah. Cat. B. pl. p.* 231.—C. pumilus, *Rottb. gram. p.* 29, *t.* 9, *f.* 4, excl. syn. L.—C. ater, *Vahl.;* —*Röm. and Sch.* 2, *p.* 190.—C. Eragrostis, *Vahl. Röm. and Sch.* 2, *p.* 190.) ⊙ Nepal. Nathpur. Bengal, (Serampore.) The Concan. Fl. and fr. R. S.
5. *inundatus*, Roxb. (*fl. ind.* 1, *p.* 201; *ed. Carey*, 1, *p.* 205;—*Wight. contrib. p.* 76.—*J. Grah. Cat. B. pl. p.* 231, excl. syn. Rheed.—C. procerus, *Roxb. fl. ind.* 1, *p.* 203; *ed. Carey*, 1, *p.* 206, not Roth. —C. Bacha, *Buch.*) পাটী *Patee.* ♃. Peninsula of India. Bengal. Fl. R. S.; fr. C. S. Found in great abundance on the low banks of the Hooghly and rivulets near Calcutta, (Serampore,) &c. Where the tide rises high over it, it thrives most luxuriantly, and helps much to bind, and protect the banks from the rapidity of the water. (*Roxb.*)
6. *compressus*, L. (*Röm. and Sch.* 2, *p.* 182;—*Wight. contrib. p.* 76;—*Rottb. gram. p.* 27, *t.* 9, *f.* 3;—*Roxb. fl. ind.* 1, *p.* 194; *ed. Carey*, 1, *p.* 198. excl. syn. Pluk.—*J. Grah. Cat. B. pl. p.* 231.—C. conglomeratus, *Willd. en. suppl. p.* 5; not sp. pl.—*Sloane jam.* 1, *t.* 76, *f.* 1.—

Pluk. t. 417, *f.* 2.) চুঁচা *Chooncha.* ⊙ W. Indies. Peninsula of India. Bengal, (Serampore,) &c. Fl. and fr. R. S.

7. *niveus*, Retz. (*Röm. and Sch.* 2, *p.* 169;—*Wight. contrib. p.* 78;—*Roxb. fl. ind.* 1, *p.* 191; *ed. Carey*, 1, *p.* 195.) ⊙ Bengal, (Serampore.) Midnapore. Monghir. Kemaon. Fl. R. S.; fr. C. S.

8. *aristatus*, Rottb. (*Gram. p.* 23, *t.* 6, *f.* 1;—*Röm. and Sch.* 2, *p.* 221;—*Wight. contrib. p.* 78;—*Roxb. fl. ind.* 1, *p.* 190; *ed. Carey*, 1, *p.* 194.—*Schult. mant.* 2, *p.* 128.) ⊙ Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.

9. *angustifolius*, Buch. (*Wight. contrib. p.* 79.) ⊙ Bengal, (Serampore.) Fl. and fr. R. S.

10. *castaneus*, Willd. (*Röm. and Sch.* 2, *p.* 177;—*Wight. contrib. p.* 79;—*Roxb. fl. ind. ind.* 1, *p.* 195; *ed Carey*, 1, *p.* 199.) ⊙ Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.

11. *articulatus*, L. (*Wight. contrib. p.* 80.)

α. (C. articulatus, *Vahl.—H. and Kth. nov. gen. and sp. p.* 184.) ♃. W. Indies. Peru. Guinea. Mauritius. Peninsula of India. Kamaon.

β. niloticus, (C. niloticus, *Forsk.;—Röm. and Sch.* 2, *p.* 164.—C. nudus, *Roxb. fl. ind.* 1, *p.* 187; *ed. Carey*, 1, *p.* 191.—C. gymnos. *Röm. and Sch. mant.* 2, *p.* 97.) ♃. Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.

12. *seminudus*, Roxb. (*fl. ind.* 1, *p.* 187; *ed. Carey*, 1, *p.* 191;—*Wight. contrib. p.* 80.—C. Konigii, *Vahl. en.* 2, *p.* 302.) গোল মেথী *Golmethee.* ♃. Bengal, (Serampore.) Fl. and fr. R. S.

13. *hexastachyus*, Rottb. (*Wight. contrib. p.* 81.)

α. communis, Nees. (C. hexastachyus, *Spreng.;—Rottb. gram. p.* 28, *t.* 14, *f.* 2.—C. rotundus, *L.;—Roxb. fl. ind.* 1, *p.* 197; *ed. Carey*, 1, *p.* 201;—*J. Grah. Cat. B. pl. p.* 231;—*R. Br. pr. p.* 216;—*Rumph.* 6, *t.* 1, *f.* 1, *and t.* 1, *f.* 2.) মুথ *Mootho.* ♃. Arabia. Ceylon. Peninsula of India. Bengal, (Serampore.) Kemaon. Java. China. Manilla. New Holland. Fl. and fr. R. S. *Roots* tuberous, sold in the bazars, and used by perfumers on account of their fragrance. Cattle eat the grass. Hogs are remarkably fond of the root. In medicine it is used as a tonic and stimulant, and has been employed in the treatment of cholera. (*Hardw.*)

β. pendulus, Nees. (*Wight. contrib. p.* 82.—C. tuberosus, *Roxb. fl. ind.* 1, *p.* 199; *ed. Carey*, 1, *p.* 203, excl. syn.) ♃. Bengal, (Serampore,) &c. Fl. and fr. R. S.

14. *pertenuis*, Roxb. (*fl. ind.* 1, *p.* 198; *ed. Carey*, 1, *p.* 202;—*Wight. contrib. p.* 83.) নাগর মুথী *Nagur-moothee.* ♃. Bengal, (Serampore.) Fl. and fr. R. S. *Roots* tuberous, aromatic, employed for perfuming the hair.

15. *exaltatus*, Retz. (*Wight. contrib. p.* 34.—C. fastigiatus, *Rottb. gram. p.* 32, *t.* 7, *f.* 2;—*Röm. and Sch.* 2, *p.* 220.—C. alopecuroides, *Roxb. fl. ind.* 1, *p.* 208; *ed. Carey*, 1, *p.* 211, excl. syn.; not Rottb.;—*J. Grah.*

Cat. B. pl. p. 232, excl. syn.) ♃. Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.

16. *Roxburghii*, Nees. (*Wight. contrib. p.* 84.—C. elatus, *Roxb. fl. ind.* 1, *p.* 204; *ed. Carey*, 1, *p.* 207, excl. syn.;—*J. Grah. Cat. B. pl. p.* 232.) গোল মলঙ্গা *Gol-molunga.* ♃. Peninsula of India. Bengal, (Serampore.) Fl. R. S.; fr. C. S.

17. *racemosus*, Retz. (*Röm. and Sch.* 2, *p.* 211;—*Wight. contrib. p.* 85.—C. digitatus, *Roxb. fl. ind.* 1, *p.* 205; *ed. Carey*, 1, *p.* 209; not Royle.) ♃. Peninsula of India. Penang. Bengal, (Serampore.) Fl. and fr. C. S.

18. *dubius*, Rottb. (*ic. p.* 20, *t.* 4, *f.* 5;—*Wight. contrib. p.* 85;—*Roxb. fl. ind.* 1, *p.* 188; *ed. Carey*, 1, *p.* 192;—*J. Grah. Cat. B. pl. p.* 232.—C. kyllingoides *Vahl.*;—*Röm. and Sch.* 2, *p.* 173; excl. syn. Pursh.—*Rumph.* 6, *t.* 2, *f.* 1.) ছোট গোথুবী *Chhoto-gothoobee.* ♃. Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.

19. *venustus*, R. Br. (*pr.* 1, *p.* 217;—*Wight. contrib. p.* 86.—C. alopecuroides *Kön.*; *in R. Br.*—*Rheed.* 12, *t.* 42.) ♃. Peninsula of India. Bengal, (Serampore.) Java. New Holland. Fl. R. S.; fr. C. S.

20. *verticillatus*, Roxb. (*fl. ind.* 1, *p.* 206; *ed. Carey*, 1, *p.* 209, excl. syn.;—*Wight. contrib. p.* 87.) বরীথী *Burethee.* ♃. Peninsula of India. Bengal, (Serampore.) Nepal. Fl. and fr. R. S.

21. *Iria*, L. (*Wight. contrib. p.* 87;—*Roxb. fl. ind.* 1, *p.* 201; *ed. Carey*, 1, *p.* 204;—*J. Grah. Cat. B. pl. p.* 232.—C. Santonici, *Rottb. gram. p.* 41, *t.* 9, *f.* 1.—*Rheed.* 12, *t.* 56.) বড় ছুঁচা *Buro-chhooncha.* ♃. Peninsula of India. Bengal, (Serampore.) Nepal. Manilla. Macao. Fl. and fr. R. S.

22. *difformis*, L. (*Wight. contrib. p.* 88;—*Röm. and Sch.* 2, *p.* 193;—*Mant.* 2, *p.* 110.—*Rottb. gram. p.* 24, *t.* 9, *f.* 2;—*Roxb. fl. ind.* 1, *p.* 195; *ed. Carey.* 1, *p.* 199;—*J. Grah. Cat. B. pl. p.* 232.—C. protractus, *Del.*) বেহুয়া *Behooa.* ⊙ Peninsula of India. Ceylon. Bengal, (Serampore.) New Holland. Mauritius. Egypt. Greece. Lombardy. Manilla. China. Fl. and fr. R. S.

23. *distans*, L. (*Wight. contrib. p.* 88;—*Jacq. ic. rar.* 2, *t.* 299;—*Röm. and Sch.* 2, *p.* 216;—*Roxb. fl. ind.* 1, *p.* 207; *ed. Carey*, 1, *p.* 210.—*J. Grah. Cat. B. pl. p.* 232.—C. elatus, *Rottb. gram. p.* 37, *t.* 10.—C. laxus, *Vahl.*—*Röm. and Sch.* 2, *p.* 217.) পানী মলঙ্গা *Panee-Mulunga.* ♃. Peninsula of India. Bengal, (Serampore.) St. Cruz. Benin. Fl. and fr. R. S.

Papyrus, Lk. (*Nees in Wight. contrib. p.* 69;—*Endl. gen. pl.* 1, *p.* 119, under Cyperus.)

1. *Pangorei*, Nees. (*Wight. contrib. p.* 88.—Cyperus Pangorei, *Rottb. gram. p.* 31, *t.* 7, *f.* 3;—*J. Grah. Cat. B. pl. p.* 232; not Roxb.—C. tegetum, *Roxb. fl. ind.* 1, *p.* 208; *ed. Carey*, 1, *p.* 211.) মাদুর কাঠী *Madoor-katee.* ♃. Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S. Those elegant, useful, durable, large mats so common

on the floors of rooms in and about Calcutta, are made of the culm of this plant. When green, they are split into three or four pieces, which on drying contract so much as to bring the margins in contact, or to overlop each other. In this state they are wove. (*Roxb.*)

2. *tegetiformis*, Arn, (*Wight. contrib. p.* 89, *annot.*—Cyperus tegetiformis, *Roxb. H. B. p.* 6.—C. nudus, *Roxb. fl. ind.* 1, *p.* 209, not p. 187; *ed. Carey*, 1, *p.* 212, not p. 191; excl. the Bengallee name.) কচকচিয়া *Kuchkuchiya*. 2. Bengal, (Serampore.) Fl. and fr. R. S.

3. *dehiscens*, Nees. (*Wight. contrib. p.* 89.—Cyperus corymbosus, *Hb. Heyne*, partly, not Rottb.—C. Pangorei, *Roxb. fl. ind.* 1, *p.* 202; *ed. Carey*, 1, *p.* 206, excl. syn.) চামাটী পাটী *Chumatee-patee*. 2. Peninsula of India. Bengal, (Serampore.) Fl. R. S.; fr. C. S. Very common on the banks of the Hooghly, where it helps much to bind and protect the banks.

MARISCUS, Vahl. (*Wight. contrib. p.* 69;—*Endl. gen. pl.* 1, *p.* 119, under Cyperus.)

1. *cyperinus*, Vahl. (*Wight. contrib. p.* 90;—*Röm. and Sch.* 2, *p.* 298.—M. Sieberianus, *Nees. in Sieb. herb. maurit.* 2, *n.* 3. partly.—Kyllinga cyperina, *Retz.*—K. umbellata, *Roxb. fl. ind.* 1, *p.* 182; *ed. Carey*, 1, *p.* 186, excl. syn. L., Rottb., and Vahl.—*J. Grah. Cat. B. pl. p.* 232.—*Rheed.* 12, *t.* 63.) বড় গোথুবী *Buro-gothoobee*. 2. Peninsula of India. Bengal, (Serampore.) Mauritius. China. Ascension. Fl. and fr. R. S.

2. *dilutus*, Nees. (*Wight. contrib. p.* 90.—Cyperus dilutus, *Vahl.*;—*Röm. and Sch.* 2, *p.* 214.—C. compactus, *Retz.*;—*Röm. and Sch.* 2, *p.* 165.—C. congestus, *Poir.*—C. spinulosus, *Roxb. fl. ind.* 1, *p.* 203; *ed. Carey*, 1, *p.* 207.) 2. Both Peninsulas of India. Bengal, (Serampore.) Fl. and fr. R. S.

KYLLINGA, L. (*Wight. contrib. p.* 69;—*Endl. gen. pl.* 1, *p.* 119, under Cyperus.)

1. *monocephala*, L. (*Wight. contrib. p.* 91;—*Röm. and Sch.* 2, *p.* 236;—*Roxb. fl. ind.* 1, *p.* 180; *ed. Carey*, 1, *p.* 185;—*Rottb. gram. p.* 13, *t.* 4, *f.* 4;—*J. Grah. Cat. B. pl. p.* 232.—Thryocepholon nemorale, *Forst.*—*Rheed.* 12, *t.* 53;—*Rumph.* 6, *t.* 8, *f.* 2.) শ্বেত গোথুবী *Shwet-gothoobee*. 2. Both Peninsulas of India. Bengal, (Serampore.) Nepal. Moluccas. China. New Holland. *Roots* fragrant and aromatic. Fl. and fr. R. S.

2. *triceps*, L. (*Wight. contrib. p.* 91;—*Rottb. gram. p.* 14, *t.* 6;—*Röm. and Sch.* 2, *p.* 238, with most syn.—*Roxb. fl. ind.* 1, *p.* 181; *ed. Carey*, 1, *p.* 186;—*J. Grah. Cat. B. pl. p.* 232;—*Rheed*, 12, *t.* 52.) 2. Both Peninsulas of India. Bengal, (Serampore.) Fl. and fr. R. S.

COURTOISIA, Nees. (*Wight. contrib. p.* 69.—*Endl. gen. pl.* 1, *p.* 119, under Cyperus.)

1. *cyperoides*, Nees. (*Wight. contrib. p.* 92.—Kyllinga cyperoides, *Roxb. fl. ind.* 1, *p.* 182; *ed. Carey*, 1, *p.* 187:—*J. Grah. Cat. B. pl. p.* 232.) ⊙? Peninsula of India. Has been introduced in H. C. G.?

B. HYPOLYTREÆ, Nees.

(*Wight. contrib. p.* 69.)

ANOSPORUM, Nees. (*Wight. contrib. p.* 70;—*Endl. gen. pl.* 1, *p.* 117.)

1. *monocephalum*, Nees. (*Wight. contrib.* 92.—Cyperus monocephalus, *Roxb. fl. ind.* 1, *p.* 188; *ed. Carey*, 1, *p.* 193;—*J. Grah. Cat. B. pl. p.* 232.) গোথুবী *Gothoobee.* ⊙ Bengal, (Serampore.) Fl. and fr. R. S.

C. SCIRPEÆ, Nees.

(*Wight. contrib. p.* 70.)

ABILDGAARDIA, Vahl. (*Wight. contrib. p.* 70;—*Endl. gen. pl.* 1, *p.* 119, under Cyperus.)

1. *Rottbolliana*, Nees. (*Wight. contrib. p.* 95.—Cyperus monastachyus, *Rottb. gram. p.* 18, *t.* 13, *f.* 3.—Scirpus schoenoides, *Kön;—Roxb. fl. ind.* 1, *p.* 221; *ed. Carey*, 1, *p.* 223, excl. syn. Retz.) মুড়মুড়ি *Moormoori.* ⊙ Bengal, (Serampore.) Peninsula of India. Fl. and fr. R. S.

FIMBRISTYLIS, Vahl. (*Wight. contrib. p.* 70;—*Endl. gen. pl.* 1, *p.* 117.)

1. *schoenoides*, Vahl. (*Wight. contrib. p.* 97;—*Röm. and Sch.* 2, *p.* 93. —Scirpus bispicatus, *Kön;—Roxb. fl. ind.* 1, *p.* 220; *ed Carey*, 1, *p.* 223.) কেশরী মলঙ্গা *Keshuree-mulunga.* ⊙ Peninsula of India. Bengal, (Serampore.) Fl. and fr. R. S.

2. *ferruginea*, Vahl. (*Wight. contrib. p.* 97.—Scirpus tristachyos, *Roxb. fl. ind.* 1, *p.* 221; *ed. Carey*, 1, *p.* 224; excl. syn.) ⊙ Bengal, (Serampore.) Fl. and fr. R. S.

3. *Royeniana*, Nees. (*Wight. contrib. p.* 99.)

β. *microstachya*, Nees. (*o. c. p.* 100.—F. glauca, *Vahl.;—Röm. and Sch.* 2, *p.* 96.—Scirpus diphyllus, *Roxb.? fl. ind.* 1, *p.* 227; *ed. Carey*, 1, *p.* 230, excl. syn.) তালনরু *Talnuroo.* ⊙ Soonderbuns. Fl. and fr. R. S.

γ. *procumbens*, Nees. (*o. c. p.* 99.—Scirpus miliaceus, *Roxb. fl. ind.* 1, *p.* 227; *ed. Carey*, 1, *p.* 231, excl. syn.) ⊙ Bengal, (Serampore.) Fl. and fr. R. S,

4. *pallescens*, Nees. (*Wight. contrib. p* 101.—Scirpus dichotomus, *Rottb. gram. p.* 57, *t.* 13, *f.* 1.—S. dichotomus. β. villosus, *Röm. and Sch.* 2, *p.* 95.—S. bisumbellatus, *Forsk.*—S. pallescens, *Roxb.? fl. ind.* 1, *p.* 229; *ed. Carey*, 1, *p.* 233.) ⊙ Fl. and fr. R. S.

5. *æstivalis*, Vahl. (*Wight. contrib. p.* 102;—*Röm. and Sch.* 2, *p.* 596.— Scirpus æstivalis, *Retz.—Roxb. fl. ind.* 1, *p.* 227; *ed. Carey*, 1, *p.* 230, excl. observ. Wall.) ⊙ Bengal, (Serampore.) Peninsula of India. Ceylon. Nepal. Banks of the Irawaddy,

TRICHELOSTYLIS, Lestiboudois. (*Wight. contrib. p.* 70;—*Endl. gen. pl.* 1, *p.* 118, under Fimbristylis.

1. *tenella*, Nees. (*Wight. contrib. p.* 103.—Scirpus tenellus, *Roxb. fl. ind.* 1, *p.* 225; *ed. Carey*, 1, *p.* 227.) ⊙ Bengal, (Serampore.) Peninsula of India. Fl. and fr. R. S.

2. *complanata*, Nees. (*Wight. contrib. l. c.*)
   a. One leaf of the involucre equalling the umbel. (Scirpus complanatus, *Vahl.*;—*Rom. and Sch.* 2, *p.* 119; *mant.* 2, *p.* 56, under Fimbristylis autumnalis.)
   β. One or other of the involucral leaves longer than the umbel. (Fimbristylis complanata, *Lk. hort. ber.* 1, *p.* 292, excl. most syn. Isolepis Willdenowii, *Röm. and Sch.* 2, *p.* 120.—Scirpus anceps, *Wild. berl. mag.* 2, *p.* 288, *t.* 8, *f.* 2.—Cyperus complanatus, *Willd.* excl. syn. Retz.)
   γ. Involucre shorter than the umbel. (Fimbristylis autumnalis, *var.* indica, *Roth. nov. sp. pl.* 1, *p.* 26.—Scirpus complanatus, *Retz.*;—*Roxb. fl. ind.* 1, *p.* 226; *ed. Carey*, 1, *p.* 228, excl. syn. Vahl.;—*J. Grah. Cat. B. pl. p.* 233.—Scirpus anceps, *Roxb. fl. ind.* 1, *p.* 230; *ed. Carey*, 1, *p.* 234.) কর্‌াটিয়া যবানী *Kuratiya-yuvanee.* ⊙ Bengal, (Serampore.) Fl. and fr. R. S.
3. *miliacea*, Nees. (*Wight. contrib. p.* 103.—Fimbristylis miliacea, *Vahl.*;—*Röm. and Sch.* 2, *p.* 93; *mant.* 2, *p.* 63, (excl. syn. *Roxb.*) and *p.* 475; *mant.* 3, *p.* 530.—F. bengalensis, *Röm. and Sch.* 2, *p.* 94; *mant.* 3, *p.* 530.—Scirpus miliaceus, *Rottb. gram. p.* 57, *t.* 5. *f.* 2;—*Burm. fl. ind. t.* 9, *f.* 2.—Scirpus bengalensis, *Pers.*—S. tetragonus, *Poir*;—*Röm. and Sch.* 2, *p.* 138;—*Roxb. fl. ind* 1, *p.* 228; *ed. Carey*, 1, *p.* 232, partly;—*J. Grah. Cat. B. pl. p.* 233.) বড় যবানী *Buro-yuvanee.* ⊙ Bengal, (Serampore.) Fl. and fr. R. S.
4. *tetragona*, Nees. (*Wight. contrib. p.* 104.—Scirpus tetragonus, *Roxb. fl. ind.* 1, *p.* 228; *ed. Carey*, 1, *p.* 232, partly.) ⊙ Bengal, (Serampore.) Fl. and fr. R. S.
5. *quinquangularis*, Nees. (*Wight. contrib. p.* 104.—Scirpus quinquangularis, *Vahl.*;—*Röm. and Sch.* 2, *p.* 145;—*Roxb. fl. ind.* 1, *p.* 229; *ed. Carey*, 1, *p.* 233.) ⊙ Bengal, (Serampore.) Fl. and fr. R. S.

Isolepis, R. Br. (*Wight. contrib. p.* 70;—*Endl. gen. pl.* 1, *p.* 118.)

1. *squarrosa*. Vahl. (*En.* 2, *p.* 259;—*Wight. contrib. p.* 106;—*Röm. and Sch.* 2, *p.* 111.—Scirpus squarrosus, *L.*—*Rottb. gram. p.* 49, *t.* 1, *f.* 5;—*Roxb. fl. ind.* 1, *p.* 222; *ed. Carey*, 1, *p.* 224;—*J. Grah. Cat. B. pl. p.* 233.—S. chinensis, *Osb. iter. p.* 220;—*Rheed.* 12, *t.* 38.) ছুঁচু মুড়মুড়ি *Chhoonchoo-moormoori.* ⊙ Bengal, (Serampore.) Fl. and fr. R. S,
2. *setacea*, R. Br. (*pr. p.* 222;—*Wight. contrib. p.* 107.—Scirpus setaceus, *L.*;—*Sm. E. B.* 24, *t.* 1693;—*Host. gram. austr.* 3, *p.* 44, *t.* 65.) ⊙ Bengal, (Serampore.) Nepal. New Holland. Europe. Fl. and fr. C. S,
3. *supina*, R. Br. (*o. c. p.* 221;—*Wight. contrib. p.* 107;—Scirpus supinus. *L.*;—*Schrad. fl. germ.* 1, *p.* 38, *t.* 1, *f.* 1;—*Host. gram. austr.* 3, *t.* 64;—*Roxb. fl. ind.* 1, *p.* 217; *ed. Carey*, 1, *p.* 119;—S. lateralis, *Retz. obs.* 4, *p.* 12, *and* 5, *p.* 16.) ⊙ Bengal, (Serampore,) &c. Nepal. New Holland. Europe. Fl. and fr. R. S.

4. *prolongata*, Nees. (*Wight. contrib. p.* 108;—Scirpus prolongatus, *Poir.;—Röm. and Sch.* 2, *p.* 131.—S. subarticulatus, *Roxb. fl. ind.* 1, *p.* 215; *ed. Carey*, 1, *p.* 217.) ⊙ Bengal, (Serampore.) Peninsula of India. Nepal, &c. Fl. and fr. R. S.
5. *articulata*, Nees. (*Wight. contrib. p.* 108.—Scirpus articulatus, *L.;—Rottb. gram. p.* 45;—*Roxb. fl. ind.* 1, *p.* 214; *ed. Carey*, 1, *p.* 217;—*J. Grah. Cat. B. pl. p.* 233.—S. fistulosus, *Forst?*) পটপটি চেঁচকা *Putputi-chenchka.* ⊙ Bengal, (Serampore,) &c. Fl. and fr. R. S.
6. *incurvata*, Nees. (*Wight. contrib. p.* 108;—Scirpus incurvatus, *Roxb. fl. ind.* 1, p. 214; *ed. Carey*, 1, *p.* 216—S. articulatus, β. tenuis, *Roth. nov. pl. sp. p.* 26.) ⊙ Bengal, (Serampore.) Fl. and fr. R. S.

Hymenochæte, Beauv. (*Wight. contrib. p.* 71;—*Endl. gen. pl.* 1, *p.* 118, under Scirpus.)

1. *grossa*, Nees. (*Wight. contirb. p.* 110;—Scirpus grossus, *Retz.;—Röm. and Sch.* 2, *p.* 141;—*Roxb. fl. ind.* 1, p. 231; *ed. Carey*, 1, *p.* 236;—*J. Grah. Cat. B. pl. p.* 233.) বড় কেশুরীয়া *Buro-keshooreya.* ♃ Bengal, (Serampore.) Fl. and fr. R. S.

Scirpus, L. (*Wight. contrib. p.* 71;—*Endl. gen. pl.* 1, *p.* 118.)

1. *junciformis*, Nees. (*Wight. contrib. p.* 112;—S. juncoïdes, *Roxb. fl. ind.* 1, *p.* 216; *ed. Carey*, 1, *p.* 218.) ⊙ Bengal, (Serampore,) &c. Fl. and fr. R. S.
2. *Kysoor*, Roxb. (*fl. ind.* 1, *p.* 230; *ed. Carey*, 1, *p.* 235;—*J. Grah. Cat. B. pl. p.* 133.) কেশাড় *Keshar.* ♃ Bengal, (Serampore,) &c. Fl. and fr. R. S.

Eleogenus, Nees. (*Wight. contrib. p.* 71.—*Endl. gen. pl.* 1, *p.* 118, under Scirpus.)

1. *capitatus*, Ness. (*Wight. contrib. p.* 112.—Eleocharis capitata, *R. Br. pr. p.* 225;—*Röm. and Sch.* 2, *p*, 153.—Scirpus capitatus, *Willd.;—Humb. and Kth. nov. gen. and sp. pl.* 1, *p.* 181;—*Roxb. fl. ind.* 1, *p.* 215; *ed. Carey*, 1, *p.* 218.—S. caribæus, *Rottb. gram. p.* 46, *t.* 15, *f.* 3.) ⊙ Bengal, (Serampore.) Peninsula of India. New Holland. Rio Janeiro, &c. Fl. and fr. R. S.

Limnochloa, Beauv. (*Wight. contrib. p.* 71;—*Endl. gen. pl.* 1, *p.* 118, under Scirpus.)

1. *plantaginea*, Nees. (*Wight. contrib. p.* 114.—Scirpus plantagineus, *Rottb. gram. p.* 45, *t.* 15, *f.* 2;—*Roxb. fl. ind.* 1, *p.* 212; *ed. Carey*, 1, *p.* 214.—Eleocharis plantaginea, *Röm. and Sch.* 2, *p.* 150.) চেঁচকা *Chenchka.* ♃ Bengal, (Serampore.) Peninsula of India. Ceylon. Fl. and fr. R. S.

   β. *bulbifera*, Nees. (Scirpus tuberosus, *Roxb. fl. ind.* 1, *p.* 210; *ed. Carey*, 1, *p.* 213.) ♃ China. Fl. Sept., in H. C. G. (*Roxb.*) *Root* tuberous, eatable, both raw and boiled.

2. *tumida*, Nees. (*Wight. contrib. p.* 114.—Scirpus tumidus, *Roxb. fl. ind.* 1, *p.* 212; *ed. Carey*, 1, *p.* 215.) ♃ Bengal, (Serampore.) Peninsula of India. Fl. and fr. R. S.

3. *acutangula*, Nees. (*Wight. contrib. p.* 114.—Scirpus acutangulus, *Roxb. fl. ind.* 1, *p.* 213; *ed. Carey*, 1, *p.* 216.) 4. Bengal, (Serampore.) Peninsula of India. Fl. and fr. R. S.

D. Scleriæ, Nees.

(*Wight. contrib. p.* 71.)

Scleria, Berg. (*Wight. contrib. l. c. and p.* 116; —*Endl. gen. pl.* 1, *p.* 112.)

1. *lithosperma*, Willd. (*Wight. contrib. p.* 117;—*Roxb. fl. ind.* 3, *p.* 574;—*J. Grah. Cat. B. pl. p.* 233.—S. tenuis, *Retz. obs.* 4, *p.* 13.—*Willd.*—Scirpus lithospermus, *L.*—*Rheed.* 12, *t.* 48.) ⊙ Bengal, (Serampore.) Peninsula of India. Ceylon. Fl. and fr. R. S.
2. *tessellata*, Willd. (*Wight. contrib. p.* 118.—Scleria biflora, *Roxb. fl. ind.* 3, *p.* 573.) ⊙ Bengal, (Serampore.) Peninsula of India. Ceylon. Nepal. Fl. and fr. R. S.

E. Cariceæ, Nees.

(*Wight. contrib. p.* 72.)

Carex, Mich. (*Wight. contrib. l. c. and p.* 119-20;—*Endl. gen. pl.* 1, *p.* 110.)

1. *cyperoïdes*, L. (*Spreng. syst.* 3, *p.* 808, *No.* 23.) 4. Siberia. Introduced in 1817.
2. *stellulata*, Gooden. (*Spreng. o. c. p.* 809, *No.* 45;—*E. B.* 12, *t.* 806.) 4. Europe. Introduced in 1817.
3. *foena*, Willd. (*Spreng. o. c. p.* 810, *No.* 49.) 4. N. America. Introduced in 1820.
4. *muricata*, L. (*Spreng. o. c. No.* 51;—*E. B.* 16, *t.* 1097.) 4. Europe. Introduced in 1817.
5. *ovalis*, Gooden. (*E. B.* 5, *t.* 306.) 4. Europe. Introduced in 1820.
6. *arenaria*, L. (*Spreng. syst.* 3, *p.* 812, *No.* 69;—*E. B.* 13, *t.* 928.) 4. Introduced in 1820.
7. *vulpina*, L. (*Spreng. o. c. p.* 813, *No.* 82;—*E. B.* 5, *t.* 307.) 4. Europe. Introduced in 1817.
8. *alpina*, Swz. (*Spreng. o. c. p.* 815, *No.* 112.) 4. Lapland. Introduced in 1820.
9. *Oderi*, Ehrh. (*Spreng. o. c. p.* 819, under C. flava.—*E. B.* 25, *t.* 1773.) 4. Europe. Introduced in 1817.
10. *pendula*, Gooden. (*Spreng. o. c. p.* 824, under C. maxima.—*E. B.* 33, *t.* 2315.) 4. Europe. Introduced in 1820.
11. *riparia*, Gooden. (*Spreng. o. c. p.* 828, *No.* 252;—*E. B.* 9, *t.* 579.) 4. Europe. Introduced in 1820.

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* *Cyperus pleuranthus*, Nees. Coromandel.—*C. tortuosus*, Roxb. Circars.—*C. polystachyus*, Rottb. Peninsula of India. N. Holland, &c.—*C. alopecuroïdes*, Rottb. not Roxb. Himalayas.—*C. pectiniformis*, Röm. and Sch. Coromandel.—*C. Haspan*, Rottb. Peninsula of India, &c.—*C. bulbosus*, Vahl. Coromandel.—*C. tenuiflorus*, Rottb. (C. incurvatus, Roxb.) Peninsula of India.—*C. procerus*, Roth. (C. tenuiflorus

Roxb.) Peninsula of India.—*C. canescens*, Vahl. excl. syn. Rheed. Peninsula of India.—*Papyrus elatus*, Nees. Ceylon.—*Remirea Wightiana*, Wall. Peninsula of India.—*Hemicarpha Isolepis*, Nees. Peninsula of India.—*Lipocarpha lævigata*, Nees. Peninsula of India.—*L. triceps*, Nees. Coromandel.—*Hypolytrum giganteum*, Wall. Both Peninsulas of India.—*Fuirena ciliaris*, Roxb. Coromandel, &c.—*F. pentagona*, W. and A. Peninsula of India.—*Dichostylis Micheliana*, Nees. Nepal. Asia Minor. South Europe.—*Abildgaardia tristachya*, Vahl. Peninsula of India.—*Chætocyperus Linmocharis*, Nees. Coromandel.—*Echinolytrum dipsaceum*, Desv. Peninsula of India.—*Fimbristylis argentea*, Vahl. Peninsula of India.—*Isolepis barbata*, R. Br. Peninsula of India. Nepal, &c.—*Eleogiton curvulus*, Nees. Peninsula of India.—*Malacochæte pectinata*, Nees. Peninsula of India.—*Eriophorum arundinaceum*, Wall. Penang.—*E. comosum*, Wall. Nepal.—*Rhynchospora chinensis*, Nees. and Meyen. China. Nepal.—*Morisia Wallichii*, Nees. Nepal.—*Haplostylis Meyenii*, Nees. China. Ceylon.—*Cephaloschoenus articulatus*, Nees. Peninsula of India.—*Hypoporum pergracile*, Nees. Silhet.—*Corbesia laxa*, Nees. Nepal.—*Trilepis Royleana*, Nees. Himalayas.—*Carex indica*, Willd. Nepal.—*Uncinia Nepalensis*, Nees. Himalayas.—*U. jamaicensis*, Pers. Jamaica.

ORDER CCLVIII.—DESVAUXIACEÆ, Lindl. Nat. Syst. p. 386.

Small herbs, by Lindl. referred to 2 genera of 12 species, all natives of New Holland and Van Diemen's Land. Properties unknown.

* *Desvauxa exserta*, R. Br. Tropical New Holland.—*D. Banksii*, R. Br. Tropical New Holland.—*D. pusilla*, R. Br. Tropical New Holland.

ORDER CCLIX.—RESTIACEÆ, R. Br.—Lindl. Nat. Syst. p. 386.

Herbs or undershrubs, by Nees von Essenbeck referred to 18, by Lindl. to 19 genera. Of these, according to R. Br., Harvey and Spreng., 60 species are natives of S. Africa; 47 of New Holland and Van Diemen's Land; 1 of S. America, (Lyginia montividensis, Spreng.); and 1 of Tranquebar. (Restio articulatus, Retz. Spreng.) The latter is not mentioned by either Roxb., Wall. or Royle. "Properties none, except that the tough wiry stems of some species are manufactured into baskets and brooms." (*Lindl.*) *Restio tectorum*, Thunb. is employed at the C. G. H., both in town and country, for thatching, and sometimes whole huts are

built of it. A roof thatched with it will last twenty or thirty years, and it is said would last much longer, if the S. E. wind did not blow dirt into it, which causes it to rot. It seems well worthy of introduction into India, where the thatch is of so perishable a nature." (*Royle.*) It has been introduced in Dapooree, where it is much used for thatching houses. (*Dr. Lush.*)

ELEGIA, Thunb. (*Endl. gen. pl.* 1, *p.* 122.)

1. *juncea*, Thunb. (*Spreng. syst.* 1, *p.* 362.—E. thyrsifera, *Pers. syn.* 2, *p.* 607.—Restio thyrsifer, *Rottb. enc. bot.* 6, *p.* 177;—*Lam. ill. t.* 804.) ♃. C. G. H. Fl. C. S. fr. 0.

WILLDENOWIA, Thunb. (*Endl. gen. pl*, 1, *p.* 121.)

1. *teres*, Thunb. (*Spreng. syst.* 1, *p.* 188.—*Thunb. in act. holm.* 1790, *p.* 28, *t.* 2, *f.* 2;—*J. Grah. Cat. B. pl. p.* 231.) ♃. C. G. H. Used for making brooms. Fl. C. S.; but rarely.

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* *Leptocarpus elatior*, R. Br. Tropical N. Holland.—*L. ramosus*, R. Br. Tropical New Holland.—*L. spathaceus*, R. Br. Tropical New Holland.—*Restio tropicus*, R. Br. Tropical New Holland.

SUB-ORDER.—ERIOCAULONEÆ, L. C. Rich., Lindl. Nat. Syst. p. 387.

Herbs, by Lindl. (excl. Leucocephala, Roxb.) referred to 3 or 5 genera. Of these, according to Spreng. syst. 14 are natives of S. America; 11 of New Holland; 5 of N. America; 1 of the Mascarenhas Islands; 1 of Madagascar; and 1 of Scotland. In the E. Indies have been discovered 19 species of *Eriocaulon*, 17 of which are described by Martius in Wall. pl. as. rar. 3, p. 27-29; (Bengal, Peninsula of India, Moulmein, Tavoy, Monghir, Assam, Khassya Mountains, Nepal); 1 (*E. quadrangulare*, Lour.) in Cochin China; and 1 (*E. Sollyanum*, Royle) in Cashmere. "Properties unknown." (*Lindl.*)

ERIOCAULON, Gronov. (*Endl. gen. pl.* 1, *p.* 123;—*Mart. l. c.*)

1. *quinquangulare*, L. (*Mart. o. c. p.* 28;—*Röm. and Sch.* 2, *p.* 862;—*Burm. fl. ind. p.* 30;—*J. Grah. Cat. B. pl. p.* 230;—Leucocephala graminifolia, *Roxb. fl. ind.* 3, *p.* 612.) গুরী *Gooree.* ⊙ Bengal, (Serampore.) Peninsula of India. Fl. and fr. R. S.
2. *sexangulare*, L. (*Mart. l. c.*;—*Burm. fl. ind. p.* 30, *t.* 9, *f.* 4;—*Röm. and Sch.* 2, *p.* 863;—*J. Grah. Cat. B. pl. p.* 231.—E. minimum, *Lam.*—Leucocephala spathacea, *Roxb. fl. ind.* 3, *p.* 613.) ⊙ Bengal, (Serampore.) Peninsula of India. Fl. and fr. R. S.
3. *argenteum*, Mart. (*l. c.*) ⊙ Bengal, (Serampore,) &c. Fl. and fr. R. S.
4. *setaceum* L. (*Mart. o. c. p.* 29;—*Röm. and Sch.* 2, *p.* 863;—*J. Grah. Cat. B. pl. p.* 230;—*Rheed.* 12, *t.* 68.) ⊙ Bengal, (Serampore.) Peninsula of India. Ceylon, &c. Fl and fr. R. S.

5. *melaleucum*, Mart.? (*o. c. p.* 29.) ⊙ Bengal, (Serampore.) Fl. and fr. R. S.

Besides these, 7 other species have been collected in the neighbourhood of Serampore, by the native gardeners attached to the garden. They have all flowered and seeded, but are as yet undetermined.

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* *Eriocaulon pallidum*, R. Br. Tropical New Holland.—*E. fistulosum*, R. Br. Tropical New Holland.—*E. deustum*, R. Br. Tropical New Holland.—*E. Wallichianum*, Mart. (Wall. pl. as. rar. 3, t. 249.) Tavoy.—*E. Brownianum*, Mart. (Wall. pl. as. rar. 3, t. 248.) Silhet. Kandalla.—*E. cristatum*, Mart. Khassya Mountains.—*Tonina fluviatilis*, Aubl. Guiana.

ORDER CCLX.—XYRIDACEÆ, Lindl. Nat. Syst. p. 388.

Herbs, by Lindl. referred to two genera. Of these, R. Br., Harvey, and Spreng. enumerate 15 for New Holland and Van Diemen's Land, of which one also is common to India; 7 for S. America; 5 for N. America; 1 for Sierra Leona; 1 for S. Africa; and 1 for Madagascar. In the E. Indies, have been discovered 6 species of *Xyris*, 5 of which are described by Martius in Wall. pl. as. rar. 3, p. 29 and 30; and one (X. anceps, Lam.), according to Spreng. a native of Malabar. Properties unimportant.

Xyris, L. (*Endl. gen. pl.* 1, *p.* 124;—*Mart. o. c. p.* 29.)

1. *indica*, L. (*Mart. o. c. p.* 30;—*Roxb. fl. ind.* 1, *p.* 179; *ed. Carey*, 1, *p.* 183;—*J. Grah. Cat. B. pl. p.* 223;—*Rheed.* 9, *t.* 71.) দাবীদুবী *Dabee-doobee.* ⊙ Bengal, (Serampore.) S. Concan. Coromandel. Fl. Nov. and Dec.; fr. January and Feb. "The natives of Bengal esteem it a plant of great value, because they think it an easy, speedy, and certain cure for the troublesome eruption called ring-worms." (*Hon'ble. John Hyde in a letter to Roxb.*) "This accords with what Rheede. says of it, vol. 9, p. 139. Foliorum succus cum aceto mixtus impetigini resistit. Folia cum radice oleo incocta, contra lepram sumuntur." (*Roxb.*)

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* *Xyris pauciflora*, Willd. 4. Both Peninsulas of India. Silhet. Nepal. Tropical New Holland.—*X. schoenoïdes*, Mart. Nepal.—*X. lappacea*, Heyne. Coromandel.—*X. robusta*, Mart. Silhet.—*X. complanata*, R. Br. Tropical New Holland.—*X. scabra*, R. Br. Tropical New Holland.—*X. lævis*, R. Br. Tropical New Holland.—*X. denticulata*, R. Br. Tropical New Holland.—*Abolboda pulchella*, Humb. Banks of the Orinocco.—*A. imberbis*, Humb. Guiana.

Class 4th.

RHIZANTHÆ.

Lindl. Nat. Syst. p. 389.

ORDER CCLXI.—RAFFLESIACEÆ, Endl.;—Lindl. Nat. Syst. p. 392.

Stemless parasitical plants, by Lindl. referred to 4 genera; "natives of the E. Indies, and probably all astringent." (*Endl.*)

ORDER CCLXII.—CYTINACEÆ, Lindl. Nat. Syst. p. 392.

Parasitical herbaceous plants, by Lindl, referred to 5 genera. Of these, Spreng. enumerates 3 species from S. Africa; 1 from S. Europe. Apodanthes, Poit. is probably a native of Guiana. Properties unimportant.

ORDER CCLXIII.—BALANOPHORACEÆ, Lindl. Nat. Syst.

Leafless parasitical plants, by Lindl. referred to 4 genera. Of these, Spreng. enumerates 3 species for S. America and the W. Indies, and 1 for the New Hebrides. In the E. Indies, according to Wall. Cat., have been discovered 4 species of Balanophora, viz. *B. dioica*, R. Br. (B. elongata, Bl. ?) Nepal, Java?; *B. indica*, Wall. Peninsula of India; *B. typhina*, Wall. Prome. Taong-Dong, and *B. gigantea*. Wall. which, perhaps, may form a new genus, Sarcocordylis, Wall. Taong-Dong. "Properties unknown." (*Lindl.*)

ORDER CCLXIV.—CYNOMORIACEÆ, Lindl. Nat. Syst. p. 394.

Leafless parasitical plants, by Lindl. referred to 3 genera. Properties unimportant.

CLASS 5TH.

ACROGENÆ.

Lindl. Nat. Syst. p. 395, or Flowerless Plants.

A. FILICALES, Lindl. Nat. Syst. p. 397.—Filices of others.

THE FERN FAMILY.

Leafy plants, producing a rhizoma, which creeps below or upon the surface of the earth, or rises into the air like the trunk of a tree. (*Lindl.*) They differ much from all living plants, and come nearest to the flowering classes by Cycadaceæ. They prevail chiefly where there is a certain degree of moisture; hence they are abundant in insular situations, in the forests of tropical countries, as well as on the mountains of northern latitudes. In the E. Indies they have been found in the greatest abundance in the Malayan Peninsula, the Khassya Mountains, the Mishmee Hills, Bootan, Nepal, the Himalayas, Mergui, and the west coast of the Peninsula of India. In Royle's collection there are about 80 species, obtained mostly from the tract of the Himalayas, between the Ganges and Sutlej rivers, and only 1 species from the plains of India, that is *Asplenium radiatum*, Sws., which is found at Saharunpore and Delhi. The only other fern Royle found in the plains was *Cheilanthes farinosa*, Kaulf; but even this only near the Rajmahl hills, where there are also a few other species. About Serampore have been discovered only 20 species, growing in ditches, on old walls, trees, &c. although moisture here is considerable throughout the greater part of the year. Wall. Cat. excluding exotics, contains about 430 species, viz. 22 of *Acrostichum*; 95 of *Polypodium*; 2 of *Hemionitis*; 12 of *Grammitis*; 2 of *Antrophyum*; 5 of *Meniscium*; 2 of *Tænitis*; 3 of *Notholæna*; 1 of *Matonia*; 62 of *Aspidium*, 58 of *Asplenium*; 1 of *Allantodia*; 34 of *Pteris*; 7 of *Cheilanthes*; 1 of *Cryptogramma*; 18 of *Lindsæa*; 3 of *Vittaria*; 9 of *Adiantum*; 1 of *Woodwardia*; 2 of *Blechnum*; 8 of *Lomaria*; 3 of *Cyathea*; 1 of *Sphæropteris*; 9 of *Alsophila*; 3 of *Dicksonia*; 30 of *Davallia*; 3 of *Gleichenia*; 1 of *Ceratopteris*; 8 of *Hymenophyllum*; 5 of *Trichomanes*; 3 of *Osmunda*; 1 of *Angiopteris*; 1 of *Schizæa*; 7 of *Lygodium*; 1 of *Ophioglossum*; 1 of *Helminthostachys*; 2 of *Botrychium*; 1 of *Actinostachys*; and 2 of *Arthrobotrys*.—Many of these are natives of the Indian Archipelago, but by far the greater part have been collected on the Malayan Peninsula, the Khassya Mountains, Nepal, and the Himalayas.

The properties of the fern-family are upon the whole unimportant.

Lindley thinking it not inexpedient to consider ferns as a collection of genera equivalent to the alliances of Flowering Plants, has divided them into the following natural orders: *Polypodiaceæ*, *Gleicheniaceæ*, *Osmundaceæ*, *Danæaceæ*, and *Ophioglossaceæ*.

ORDER CCLXV.—POLYPODIACEÆ, R. Br.—Lindl. Nat. Syst. p. 400.

ACROSTICHUM, L. (*Endl. gen. pl.* 1, *p.* 59.)

1. *emarginatum*, Roxb. (*H. B. p.* 75.) ♃. ⌣ Bengal. Introduced into H. C. G. in 1796. Fl.? (*Roxb.*)

POLYPODIUM, L. (*Endl. gen. pl.* 1, *p.* 60.)

1. *pertusum*, Roxb. (*H. B. p.* 75.—Niphobolus pertusus, *Spreng. syst.* 4, *p.* 44.) ♃. Soonderbuns. Fl. R. S.
2. *glabrum*, Roxb. (*H. B. p.* 75.) চিতুয়া বোড়া *Chitooa-bora.* ♃. Paras. Bengal, (Serampore.) Fl. R. S.
3. *quercifolium*, L. (*Spreng. syst.* 4, *p.* 49;—*R. Br. pr. p.* 147;—*Roxb. H. B. p.* 75;—*J. Grah. Cat. B. pl. p.* 241;—*Rheed.* 12, *t.* 11;—*Rumph.* 6, *t.* 36.) গরুড় *Guroor.* ♃. Paras. Bengal, (Serampore.) Peninsula of India. Moluccas. New Holland, &c. Fl. R. S.
4. *proliferum*, Roxb. (*H. B.* (1814,) *p.* 75; not Kaulf.) দাপু *Dapoo.* ♃. Bengal, (Serampore.) Khassya Mountains. Oude. Nepal. Fl. R. S.
5. *excavatum*, Roxb. (*H. B.* (1814,) *p.* 75; not Bory.—*Rumph.* 6, *t.* 35, *f.* 1.) ♃. Moluccas. (*Roxb.*) Fl.?
6. *semisagittatum*, Roxb. (*H. B. p.* 75.) ♃. Soonderbuns. Has been introduced into H. C. G. (*Roxb.*) Fl.?
7. *mucronatum*, Roxb. (*H. B.* 75.) ♃ Silhet. Introduced into H. C. G. in 1811. (*Roxb.*) Fl.?
8. *lucidum*, Roxb. (*H. B. p.* 75.) ♃. Nepal. Introduced into H. C. G. by Buch. (*Roxb.*) Fl.?
9. *tenerum*, Roxb. (*H. B. p.* 75.) ♃. Silhet. Introduced into H. C. G. in 1811. (*Roxb.*) Fl.?
10. *Phyllitidis*, L. (*Spreng. syst.* 4, *p.* 47;—*Roxb. H. B. p.* 75.) ♃. Chittagong. Introduced into H. C. G. by Buch. (*Roxb.*) Fl.?
11. *sophoroïdes*, Roxb. (*H. B. p.* 75.) ♃. Moluccas. Introduced into H. C. G. in 1798. Fl. R. S. (*Roxb.*)

HEMIONITIS, L. (*Endl. gen. pl.* 1, *p.* 59.)

1. *cordifolia*, Roxb. (*H. B. p.* 75.—H. cordata, *Hook. and Grev. ic. filic.* 1, *t.* 64.) চাকুল্যা *Chakoolya.* ♃. Bengal, (Serampore.) Rangoon. Fl. R. S.

NOTHOLÆNA, R. Br. (*Endl. gen. pl.* 1, *p.* 60.)

1. *piloselloides*, Kaulf. (*Spreng. syst.* 4, *p.* 42.—Pteris piloselloïdes, *L.*;—*Roxb. H. B. p.* 75;—*Rheed.* 12, *t.* 29.) ♃. Paras. Bengal, (Serampore.) Chittagong. Penang. Singapore. Tenasserim. Khassya Mountains. Courtallum. Fl. R. S.

ASPIDIUM, L. (*Endl. gen. pl.* 1, *p.* 62.)

1. *unitum*, Swz. (*Spreng. syst.* 4, *p.* 103, excl. syn.—Polypodium unitum, *Roxb. H. B. p.* 75.) পাণকাকরুল *Pankakrool.* ♃. Bengal, (Serampore.) Fl. R. S.
2. *flagelliferum*, Wall. (*Cat.*—Polypodium flagelliferum, *Roxb. H. B. p.* 75.) ♃. Bengal. Fl. R. S.

ASPLENIUM, L. (*Endl. gen. pl.* 1, *p.* 61.)

1. *Nidus*, L. (*Spreng. syst.* 4, *p.* 80;—*R. Br. pr. p.* 150;—*Roxb. H. B. p.* 75;—*B. M.* 58, *t.* 3101.) ♃. Paras. Amboyna. Introduced into H. C. G. in 1798. (*Roxb.*) Fl. ?
2. *bipinnatum*, Roxb. (*H. B. p.* 75.) ♄ Introduced into H. C. G. in 1798. (*Roxb.*) Fl. ?

PTERIS, L. (*Endl. gen. pl.* 1, *p.* 61.)

1. *graminifolia*, Roxb. (*H. B. p.* 75.) ♃. Paras. Silhet. Introduced into H. C. G. in 1811. (*Roxb.*) Fl. ?
2. *angustifolia*, Swz. (*Roxb. H. B. p.* 75.—Tænitis angustifolia, *Spreng. syst.* 4, *p.* 42.) ♃. Paras. Soonderbuns. Introduced into H. C. G. in 1796. Fl. R. S. (*Roxb.*)
3. *vittata*, L. (*Spreng. syst.* 4, *p.* 71;—*Roxb. H. B. p.* 75.) ♃. Soonderbuns. Introduced into H. C. G. in 1795. Fl. R. S. (*Roxb.*)
4. *amplectens*, Wall. (*Cat.*—P. amplexicaulis, *Roxb. H. B. p.* 75.) ♃. Bengal. Banks of the Irawaddi. Mountains of Ava. Fl. R. S. (*Roxb.*)
5. *dimidiata*, Willd. (*Spreng. syst.* 4, *p.* 73;—*Roxb. H. B. p.* 75.) ♃. Silhet. Introduced into H. C. G. in 1811. Fl. R. S. (*Roxb.*)
6. *esculenta*, Forst. (*Spreng. syst.* 4, *p.* 77;—*R. Br. pr. p.* 154;—*Roxb. H. B. p.* 75.) ♃. New Holland. Van Diemen's Land. Introduced into H. C. G. in 1811. (*Roxb.*) Fl. ?

CHEILANTHES, Swz. (*Endl. gen. pl.* 1, *p.* 60.)

1. *farinosa*, Kaulf. (*Hook. and Grev. ic. filic.* 2, *t.* 134.—C. dealbata, *Don*, not Pursh.) ♃. Khassya Mountains. Fl. C. S.

LINDSÆA, Sm. (*Endl. gen. pl.* 1, *p.* 62.)

1. *odorata*, Roxb. (*H. B. p.* 76.) ♃. Garrow Hills. Fl. R. S. (*Roxb.*)

ADIANTUM, L. (*Endl. gen. pl.* 1, *p.* 61.)

1. *lunulatum*, N. L. Burm. (*Spreng. syst.* 4, *p.* 110;—*Hook. and Grev.* 1, *t.* 104;—*J. Grah. Cat. B. pl. p.* 242.—Pteris lunulata, *Retz.*;—*Roxb. H. B. p.* 75;—*Rheed.* 12, *t.* 40.) কালী ঝাঁপ *Kalee-jhamp.* ♃. Bengal, (old walls about Serampore.) Peninsula of India. Nepal. Java. Philippines. Mexico. Brazil. Fl. C. S.
2. *caudatum*, L. (*Spreng. syst.* 4, *p.* 111;—*Roxb. H. B. p.* 76.) ♃. E. Indies. Introduced into H. C. G. by H. T. Colebrooke. (*Roxb.*) Fl. ?

LOMARIA, Willd. (*Endl. gen. pl.* 1, *p.* 61.)

1. *scandens*, Willd. (*Spreng. syst.* 4, *p.* 64;—*J. Grah. Cat. B. pl. p.* 241, excl. syn. Rumph and Burm.—Pteris scandens, *Roxb. H. B. p.* 75.) ♃. ⌣ Both Peninsulas of India. Khassya Mountains. Moluccas. Fl. R. S. (*Roxb.*)

SPHÆROPTERIS, Bernh. (*Endl. gen. pl.* 1, *p.* 63.)

1. *barbata*, Wall. (*pl. as. rar.* 1, *t.* 48.) ♃. Nepal. Has been introduced into H. C. G. ?

DAVALLIA, Sm. (*Endl. gen. pl.* 1, *p.* 63.)

1. *parallela*, Wall. (*Cat.*—D. multiflora, *Roxb. H. B. p.* 75.) ♃. Bengal, (Serampore.) Fl. R. S.

2. *pilosa*, Roxb. (*H. B. p.* 75.) 4. Bengal. Has been introduced into H. C. G. (*Roxb.*) Fl.?
3. *angustifolia*, Roxb. (*H. B. p.* 75.) 4. New South Wales. Has been introduced into H. C. G. (*Roxb.*) Fl.?

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* *Acrostichum flagelliferum*, Wall. (Hook. and Grev. 1, t. 23.—Rheed. 12, t. 19.) Khassya Mountains. Chappedong. Peninsula of India.—*A. aureum*, L. Penang. Singapore. Æstuaries of the Hooghly.—*Polypodium Horsfieldii*, R. Br. Mountains of Penang.—*P. tridactylum*, Wall. Khassya Mountains.—*P. Wallichii*, R. Br. (Hook. and Grev. 2, t. 168-9.—*Hemionitis hastata*, R. Br. Courtallum.—*Antrophyum reticulatum*, Kaulf. Penang.—*Meniscium triphyllum*, Swz. Khassya Mountains. Singapore.—*Tœnitis blechnoïdes*, Swz. Penang. Tavoy.—*Aspidium alatum*, Wall. (Hook. and Grav. 2, t. 84.) Khassya Mountains.—*A. coadunatum*, Wall. (Hook. and Grev. 2, t. 202.) Khassya Mountains.—*Asplenium multicaule*, Wall. Khassya Mountains.—*A. fraxinifolium*, Wall. Penang.—*Allantodia Brunoniana*, Wall. pl. as. rar. 1, t. 52. Mahableshwur.—*Pteris semipinnata*, L. Khassya Mountains.—*P. longifolia*, L. Banks of the Irawaddi.—*Cheilanthes micrantha*, Wall. Khassya Mountains.—*Vittaria elongata*, Swz. Soonderbuns.—*Blechnum orientale*, L. Singapore.—*Davallia tenuifolia*, Swz. Khassya Mountains.—*D. pedata*, Sm. Khassya Mountains.

ORDER CCLXVI.—GLEICHENIACEÆ, Lindl. Nat. Syst. p. 401.

CERATOPTERIS, Brongn. (*Endl. gen. pl.* 1, *p.* 64.)

1. *C. thalictroïdes*, Brongn. (Pteris succulenta, *Roxb. H. H. p.* 75.) 4. Bengal. Fl. R. S. (*Roxb.*)

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* *Gleichenia Hermanni*, R. Br. (Hook. and Grev. 1, t. 14.—Rumph. 6, *t.* 38.) 4. Ceylon. Nepal. New Holland. Khassya Mountains, &c.—*Hymenophyllum serpens*, Wall. Khassya Mountains.—*Trichomanes rigidum*, Wall. Singapore.

ORDER CCLXVII.—OSMUNDACEÆ, R. Br.—Lindl. Nat. Syst. p. 402.

LYGODIUM, Swz. (*Endl. gen. pl.* 1, *p.* 65.)

1. *microphyllum*, R. Br. (*pr. p.* 162;—Ugena microphylla, *Cav. ic.* 6, *p.* 76, *t.* 595, *f.* 2.) 4. ⌣ Khassya Mountains. Fl. R. S.

2. *circinatum*, Swz. (*Spreng. syst.* 4, *p.* 29;—*Rumph.* 6, *t.* 33.) ♃. ◡ Khassya Mountains. Fl. C. S.
3. *flexuosum*, Swz. (*Spreng. syst.* 4, *p.* 29;—*J. Grah. Cat. B. pl. p.* 242.—Ophioglossum flexuosum, *L.*;—*Roxb. H. B. p.* 75;—*Rheed.* 12, *t.* 32.) ভুটরাজ *Bhootraj*. ♃. ◡ Bengal, (Serampore.) Peninsula of India. Fl. R. S.
4. *longifolium*, Swz. (Khássya Mountains.)

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* *Lygodium pinnatifidum*, Swz. ♃. ◡ The Ghauts and Concans. Mahableshwur.—*L. dichotomum*, Swz. Penang. Singapore.—*L. japonicum*, Swz. Khassya Mountains, &c.—*Schizæa dichotoma*, Swz. Singapore.

ORDER CCLXVIII.—DANÆACEÆ, Agardh.;—Lindl. Nat. Syst. p. 402.

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* *Danæa alata*, Sm. W. Indies.—*D. nodosa*, Sm. W. Indies.—*D. simplicifolia*, Rudg. Guiana.—*Marattia alata*, Sm. Jamaica.—*M. fraxinea*, Sm. Mauritius.—*Kaulfussia assamica*, Griff. Upper Assam.

ORDER CCLXIX.—OPHIOGLOSSACEÆ, Lindl. Nat. Syst. p. 402.

Ophioglossum, L. (*Endl. gen. pl.* 1, *p.* 66.)

1. *reticulatum*, L. (*Sp. pl. p.* 1518;—*Spreng. syst.* 4, *p.* 22;—*Hook. and Grev.* 1, *t.* 20.—O. cordatum and reticulatum, *Plum. fil. p.* 141, *t.* 164.—O. cordifolium, *Roxb. H. B. p.* 75.) একতীর *Ekteer*. ♃. Bengal, (Serampore.) Mauritius. Bourbon. St. Domingo. Jamaica. Guiana. Fl. R. S.
2. *filiforme*, Roxb. (*H. B. p.* 75;—*Rheed.* 12, *t.* 34.) ♃. ◡ Bengal. Peninsula of India. (Serampore.) Fl. R. S.
3. *pendulum*, L. (*Spreng. syst.* 4, *p.* 22;—*J. Grah. Cat. B. pl. p.* 243;—*Hook. and Grev.* 1, *t.* 19;—*Rumph.* 6, *t.* 37, *f.* 3.) ♃. Paras. Moluccas. Mauritius. Khassya Mountains. Fl. R. S.

Helminthostachys, Kaulf. (*Endl. gen. pl.* 1, *p.* 66.)

1. *laciniata*, (H. dulcis, *Kaulf.*;—*Spreng. syst.* 4, *p.* 22.—Ophioglossum laciniatum, *Rumph.* 6, *t.* 68, *f.* 3.—Botrychium ceilanicum, *Swz.*;—*J. Grah. Cat. B. pl. p.* 243.—Osmunda ceilanica, *L.*;—*Roxb. H. B. p.* 75.) একবীর *Ekbeer*. ♃. Bengal, (Serampore.) Peninsula of India. Moluccas. Fl. R. S.

Ophioglossum moluccanum, Schlecht. (Hook. and Grev. p. 45.—Rumph. 6, t. 68, f. 2.) Moluccas. Mauritius. Peninsula of India.

B. Lycopodales, *Lindl. Nat. Syst. p.* 402.

ORDER CCLXX.—LYCOPODIACEÆ, DC.;—Lindl. Nat. Syst. p. 403.

THE CLUB-MOSS TRIBE.

Usually moss-like plants, with creeping stems and imbricated leaves, or stemless plants, with erect subulate leaves, and a solid cormus. (*Lindl.*) They are most abundant in damp hot situations in the tropics, but are also natives of even the north of Europe, where whole tracts are found covered with Lycopodium alpinum and selaginoïdes, L. The genera usually included in the order are *Lycopodium*, *Psilotum*, and *Isoetes*. Of the first of these, Wall. Cat. enumerates 30 species, chiefly discovered in Nepal, the Khassya Mountains, the Neelgherries, Courtallum, Penang, and Singapore; of the second, 2 (Nepal, Singapore); and of the third, only 1, (Peninsula of India.)

The thecæ of Lycopodium contain an inodorous powder, which is used externally to cover excoriations, especially of new-born children. The powder is very inflammable, and used in fireworks. A decoction of L. clavatum and L. Selago, L. excites vomiting. The latter is prescribed in Russia as a purgative and emetic, but only in small doses, as it otherwise brings on convulsions.

LYCOPODIUM, L. (*Endl. gen. pl.* 1, *p.* 69.)

1. *Hookeri*, Wall. (*Hook. and Grev.* 2, *t.* 85.) ♃. Nepal. Fl. R. S.
2. *Wildenowii*, Desv. (*Spreng. syst.* 4, *p.* 19.—L. plumosum, *Roxb. H. B. p.* 75; not L.) ♃. Paras. Penang. Fl. R. S.
3. *cernuum*, L. (*Spreng. syst.* 4, *p.* 15;—*J. Grah. Cat. B. pl. p.* 243;—excl. syn.) ♃. Penang. Singapore. Concans. Khassya Mountains. Fl. R. S.
4. *Phlegmaria*, L. (*Spreng. syst.* 4, *p.* 12;—*Roxb. H. B. p.* 75;—*J. Grah. Cat. B. pl. p.* 243;—*Rheed.* 12, *t.* 14;—*Rumph.* 6, *t.* 41, *f.* 1.) সীতাহার *Seetahar*. ♃. Paras. Bengal, (Serampore.) Soonderbuns. Penang. Singapore. Khassya Mountains. The Ghauts. S. Concan. Fl. R. S.
5. *imbricatum*, Roxb. (*H. B. p.* 75.) হাতাযোড়া *Hatajora*. ♃. ~ Bengal, (Serampore.) Fl. R. S.
6. *aristatum*, Roxb. (*H. B.* (1814,) *p.* 75; not Humb.—*Dill. musc. t.* 66, *f.* 7.) ♃. Paras. China. Introduced in H. C. G. in 1812. (*Roxb.*) Fl. ?

ISOËTES, L. (*Endl. gen. pl.* 1, *p.* 69.)

1. *capsularis*, Roxb. (*H. B. p.* 75.) ♃. Bengal, (Serampore.) Fl. C. S. Is this identical with I. coromandelina, L., and I. indica, Hb. Russ.?

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* *Lycopodium canaliculatum*, L. The Concans.—*L. complanatum*, L. Courtallum. Dindygul.—*L. ornithopodioïdes*, L. Courtallum.—*L. pallidum*, Hook and Grev. Courtallum.—*L. circinale*, L. Behar.—*L.*

tenellum, Desv. Mussooree. Khassya Mountains.—*L. subulifolium*, Hook. and Grev. Nepal.—*L. pulcherrimum*, Hook. and Grev. Nepal. —*L. serratum*, Thunb. Nepal.—*L. Hamiltonii*, Spreng. (L. obtusifolium, Buch.) Nepal.—*Psilotum triquetrum*, Swz. Mauritius. Nepal. —*Isoëtes lacustris*, L.; E. B. 16, t. 1084. Europe.

ORDER CCLXXI.—MARSILEACEÆ, R. Br.;—Lindl. Nat. Syst. p. 404.

THE PEPPERWORT TRIBE.

Creeping plants, by Lindl. referred to 2 genera, both of which are inhabitants of ditches or inundated places, in various parts of the world. They do not appear to be affected by climate so much as by situation, whence they have been detected in various parts of Europe, Asia, Africa, America and New Holland, chiefly, however, in temperate latitudes. Properties unknown. (*Lindl.*) One of the genera, *Pilularia*, contains but a single species: *P. globulifera, L.; E. B.* 8, *t.* 521. The other, *Marsilea*, has several representatives. In India there appear, according to Royle, to be three distinct species: *M. ægyptiaca*, Willd., which is found in the Peninsula of India, as well as in Egypt, and which appears to be M. erosa, Willd.;—*M. coromandelina*, N. L. Burm.; (M. minuta, Lam.) a species apparently peculiar to the most southern part of the Indian Peninsula; and

MARSILEA, L. (*Endl. gen. pl.* 1, *p.* 68.)

1. *quadrifolia*, L. (*Spreng. syst.* 4, *p.* 8;—*Roxb. H. B. p.* 75;—*J. Grah. Cat. B. pl. p.* 243.) সুষণি শাক *Soosni-shak.* 4. ~ Europe. N. Africa. Mascarenhas Islands. New Holland. Bengal, (Serampore.) Peninsula of India. Fl. C. S.

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* *M. hirsuta*, R. Br. Tropical New Holland.—*M. biloba*, Willd. S. Africa.

ORDER CCLXXII.—SALVINIACEÆ, Bartl.;—Lindl. Nat. Syst. p. 405.

Floating plants with rooting stems, by Lindl. referred to 2 genera. Of *Azolla*, 1 species has been found in S. America, down even to the Straits of Magellan; 1 in Portorico; 1 in Carolina and Canada; 2 in New Holland and Van Diemen's Land, and 1 to the eastward of Bengal, and in Behar. The latter, according to Royle, appears to be nearly allied to, if not identical with, *A. pinnata*, R. Br. The second genus, *Salvinia*, has

1 species in Europe and N. America; 2 in S. America; 1 in Cuba; and 4 in the E. Indies, one of which is also common to Europe and N. America. SALVINIA, Mich. (*Endl. gen. pl.* 1, *p.* 67.)

1. *imbricata*, Roxb. (*H. B. p.* 75.) পাণা *Pana.* ⊙ Bengal. In H. C. G. fl. R. S. (*Roxb.*)
2. *cucullata*, Roxb. (*l. c.*) ইন্দুর কানী পাণা *Indoor-kanee-pana.* ⊙ Bengal, (Calcutta.) In H. C. G. fl. R. S. (*Roxb.*)
3. *verticillata*, Roxb. (*l. c.*) উলকি পাণা *Oolki-pana.* ⊙ Bengal. In H. C. G. fl. R. S. (*Roxb.*)

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* *Salvinia natans*, All. ⊙ Europe. N. America. Goruckpore. Cashmere. —*Azolla pinnata*. R. Br. Port Jackson.—*A. rubra*, R. Br. Port Jackson. Van Diemen's Land.

C. Muscales, *Lindl. Nat. Syst. p.* 406.

ORDER CCLXXIII.—BRYACEÆ, Lindl. Nat. Syst. p. 407.

(Musci, Juss.)

THE MOSS TRIBE.

Erect or creeping, terrestrial or aquatic, cellular plants, (*Lindl.*) abundant only in temperate climates, though also found within the tropics. From India, (especially Nepal) Dr. Hooker has according to Wall. Cat. examined and named 109 species, viz. 5 of *Gymnostomum*; 1 of *Grimmia*; 1 of *Orthodon*; 2 of *Orthotrichum*; 1 of *Schlotheimia*; 4 of *Syrrhopodon*; 1 of *Calymperes*; 1 of *Zygodon*; 4 of *Didymodon*; 6 of *Dicranum*; 1 of *Trematodon*; 4 of *Tortula*; 16 of *Bryum*; 2 of *Brachymenium*; 1 of *Funaria*; 1 of *Bartramia*; 6 of *Polytrichum*; 1 of *Lyellia*; 3 of *Fissidens*; 17 of *Hypnum*; 7 of *Leskea*; 18 of *Neckera*; 2 of *Hookera*; and 4 of *Pterogonium*. In *Royle's* colleetion are about 55 species, almost all from Mussooree, several of which are identical with those of Wall. Cat. During a journey into Upper Assam, in 1835 and 1836, Mr. W. Griffith collected, chiefly on the Khassya Hills, 143 species of Musci, by himself, fully described in *M'Clelland's Journal of Natural History, Calcutta*, 1842, *Nos.* 8 *and* 9, and forming about $\frac{1}{8}$th of the whole number (1,324) contained in Bridel's Bryologia universalis. "Some idea," says the author, "may be formed of the probable great number of species that remain to be found, when I mention, that the whole of the Hill collection was formed between the 8th October and the 20th of November, and that the most interesting portions of the Hills to the eastward of the route mentioned were not visited." Of the 143 species, 1 belongs to *Sphagnum*; 6 to *Polytrichum*; 1 to *Diphyscium*; 7 to

Gymnostomum; 1 to *Orthodon;* 5 to *Orthotrichum;* 1 to *Schlotheimia;* 3 to *Weissia;* 3 to *Barbula;* 3 to *Grimmia;* 2 to *Trematodon;* 13 to *Dicranum;* 10 to *Fissidens;* 4 to *Didymodon;* 2 to *Fumaria;* 3 to *Bartramia;* 3 to *Brachymenium;* 7 to *Bryum;* 4 to *Pterogonium;* 20 to *Neckera;* 1 to *Daltonia;* 1 of *Anhymenium* (a new genus); 3 of *Pleuropus* (a new genus); 4 of *Hookera;* 7 of *Leskia;* and 28 of *Hypnum.* According to the abstract, given in the Proceedings of the Linnean Society, before which latter Mr. Griffith's paper was read, his "collection contains Sphagnum obtusifolium, Polytrichum urnigerum, and aloïdes, Weissia Templetoni, Dicranum scoparium, and glaucum, Bartramia fontana, and several others familiar to the European muscologist; but the far greater number of the species, have not been previously described." Properties insignificant.

Barbula, Hedw. (*Endl. gen. pl.* 1, *p.* 52.)

1. *indica,* Brid. (*Bryol. univers.* 1, *p.* 544;—*Griff. o. c. p.* 490.—Tortula indica, *Hook. musc. exot. p.* 7, 135.) ♃. Serampore. Fl. R. S.

Fissidens, Hedw.

1. *bryoïdes,* Hedw. (*Griff. o. c. p.* 502.—Hypnum bryoïdes, *L.;—E. B.* 9, *t.* 625.) ♃. Serampore. Fl. R. S.

ORDER CCLXXIV—MARCHANTIACEÆ, Lindl. Nat. Syst. p. 412.

(Hepaticæ, Juss.)

THE LIVER-WORT TRIBE.

Plants growing on the earth or trees, in damp places, all over the world, except where excessive dryness prevails. In India they are but imperfectly known, so that out of 237 species enumerated by Sprengel only 25 Indian ones have been named by Lehmann, according to Wall. Cat., viz. 5 of *Marchantia;* 1 of *Grimaldia;* 2 of *Plagiochasma;* 4 of *Fimbriaria;* 1 of *Dumortiera;* 1 of *Riccia;* 10 of *Jungermannia;* and 1 of *Blandovia;* all, with 4 exceptions, natives of Nepal, and the Khassya Mountains.—Royle adds to the above *Marchantia polymorpha,* L. and *Jungermannia scorpioïdes,* Nees.—Griffith's collection of Marchantiaceæ on the Khassya Hills and in Assam amounts to 48 species. Properties "unknown." (*Lindl.*)

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* *Marchantia polymorpha,* L. Europe. Himalayas.—*M. androgyna,* L. Europe. Nepal.

D. Charales, *Lindl. Nat. Syst. p.* 441.

ORDER CCLXXV.—CHARACEÆ, Rich. and Kth. ;—Lindl. Nat. Syst. p. 415.

Aquatic plants, always submersed, referred to 3 genera. Of these have been discovered in India about 13 species of *Chara.* Properties unknown.

CHARA, L. (*Endl. gen. pl.* 1, *p.* 7.)

1. *verticillata,* Roxb. (*fl. ind.* 3, *p.* 563.) ⊙ Bengal, (Serampore.) Fl. C. and H. S.
2. *involucrata,* Roxb. (*o. c. p.* 565.) ⊙ Bengal, (Serampore, Calcutta.) Fl. C. and H. S.
3. *furcata,* Roxb. (*fl. ind.* 3, *p.* 564.) ⊙ Bengal, (Serampore, Calcutta.) Fl. R. S.

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* *Chara foetida,* Buch. Bangri.—*C. spiralis,* Buch. Bangri.—*C. hispida,* L. (E. B. 7, t. 463.) Europe. India.—*C. polyclados,* D. Don. Nepal. —*C. zeylanica,* Willd. Tranquebar.—*C. setosa,* Willd. Peninsula of India.—*C. corallina,* Willd. Peninsula of India.—*C. filamentosa,* Rottl. Peninsula of India.—*C. foliolosa,* Rottl. Peninsula of India.—*C. polyphylla,* Rottl. Peninsula of India.

E. Fungales, *Lindl. Nat. Syst. p.* 418.

ORDER CCLXXVI.—AGARICACEÆ, (FUNGACEÆ, Lindl Nat. Syst. p. 419.)

THE MUSHROOM TRIBE.

Mushrooms, Puff Balls and Mildews are found growing in the earth, or upon decayed animal or vegetable substances, and scarcely ever upon living bodies of either kingdom, in which respect they differ from Lichens, which commonly grow upon the living bark of trees. They are as remarkable for the rapidity of their growth, which frequently takes place during the night, as for their perishable nature and the short space of time (only a few hours,) that some of them require to vegetate in, and to attain perfection. Their geographical distribution is but little understood; in fact, the *Fungi* themselves of most countries, are but little known, from the difficulty of preserving specimens; so that in many instances, if not completely examined, and described, or drawn on the spot, it is in vain to remedy the deficiency from the contents of an herbarium. Those of tropical countries are almost unknown; only 25 are enumerated by Humboldt and Bonpland from S. America, and only 10 (and these European species) by R. Brown, as found in New Holland. None are mentioned in Roxburgh's, flor. ind.

or in Wall. ? Cat., and in Royle's collection there are only about 40 species from the Himalayas. These have been examined by D. Don., who finds as in Lichens, that the majority have the closest resemblance to European species, but, from the perishable nature of the specimens, their identification is difficult. (*Royle.*)

"Fungi are important either as food or as poison, or as parasites destructive to the plants upon which they grow. As food, the most valuable are *Agaricus campestris*, or common mushroom, the various species of *Helvella* or Morel, and *Tuber* or Truffle.—It is necessary to exercise the utmost care in employing Fungi as food. L. C. Richard, though no one was better acquainted with the distinctions of Fungi, would never eat any except such as had been raised in gardens in mushroom beds." (*Lindl.*)

AGARICUS, L. (*Endl. gen. pl.* 1, *p.* 40.)

1. *campestris*, L. (*Spreng. syst.* 4, *p.* 446.—*Grev. cryp. fl.* 161.—A. edulis, *Bull. champ. t.* 134 and 514.) ⊙ Serampore, &c.

LYCOPERDON, L. (*Spreng. syst.* 4, *p.* 378, *No.* 3500.) *Puff Ball.*

1. *pratense*, Pers. (*Spreng. syst.* 4, *p.* 523;—*Bull. herb.* 435. 2.) ⊙ Serampore.

ORDER CCLXXVII.—PARMELIACEÆ, (LICHENACEÆ, Lindl. Nat. Syst. p. 426.)

THE LICHEN TRIBE.

Perennial plants, often spreading over the surface of the earth, or rocks or trees in dry places, in the form of a lobed and foliaceous, or hard and crustaceous, or leprous substance, called a Thallus. (*Lindl.*) Feé estimates the number actually known either in herbaria or in books, at 2,400. It has been remarked that the same species are found in very different parts of the world, and that the lichens of Europe, for example, differ little from those of N. America. This is observed, says *Royle*, in a very remakable manner, in the comparatively few lichens collected by him in the Himalayas, almost the whole of which are pronounced by *D. Don*, who has examined them, to be identical with European species. *Roxb.* passes over this order entirely, and *Wall.* enumerates only 4 species, borrowed from Buch.'s Herbarium. The amount of Lichens in *Griffith's* Collection we do not know, but judging from his botanical completeness generally, it must be considerable. Among Royle's Lichens are mentioned *Usnea florida*, Ach. (Lichen floridus, L.;—E. B. 13, t. 872.)—*U. barbata*, Ach. (Lichen barbatus, L.;—E. B. 4, t. 258, f. 2.)—*Borrera ciliaris*, Ach. (Lichen ciliaris, L.;—E. B. 19, t. 1352.)—*B. furfuracea*, Ach. (Lichen furfuraceus, L.;—E. B. 14, t. 984.)—*Rocella fuciformis*, Ach. (Lichen fuciformis, L.;—E. B. 11, t. 728.)—*Ramalina farinacea*, Ach. (Lichen farinaceus, L.;—E. B. 13, t.

889.)—*Gyrophora murina*, Ach.? (Lichen murinus, Ach.;—E. B. 35, t. 2486.)—*Peltidea canina*, Ach. (Lichen caninus, L.;—E. B. 32, t. 2299.)—*Parmelia perlata*; Ach. (Lichen perlatus, L.;—E. B. 5 t. 341.)—*P. caperata*, Ach. (Lichen caperatus, L.;—E. B. 10, t. 654.)—*P. physodes*, Ach. (Lichen physodes, L.;—E. B. 2, t. 126.)—*Sticta pulmonaria*, Ach. (Lichen pulmonarius, L.;—E. B. 8, t. 572.)—*S. scrobiculata*, Ach. (Lichen scrobiculatus, L.;—E. B. 7, t. 497.)—*Stereocaulon paschale*, Ach. (Lichen pascalis, L.;—E. B. 4, t. 282,) &c.

Lichens have been remarked by DC. to possess two distinct classes of characters, the one rendering them fit for being employed as dyes after maceration in urine, the other making them nutritive and medicinally useful to men. Of those used in dyeing, the principal crustaceous kinds are *Lecanora Parella*, Ach. (E. B. 11, t. 727. Orseille de terre, or Perelle d'Auvergne of the French.)—*L. tartarea*, Ach. (E. B. 3, t. 156. When sold to the Dyers, it appears in form of a purple powder, called Cudbear, a corruption of Cuthbert, the name of its inventor.)—*L. Hæmatomma*, Ach. (E. B. 7, t. 486.)—*L. atra*, Ach. (E. B. 14, t. 949.)—*Variolaria lactea*, Ach. (E. B. 34, t. 2410.)—*Urceolaria scruposa*, Ach. (E. B. 4, t. 266.)—*U. cinerea*, Ach. (E. B. 25, t. 1751.)—*Isidium Westringii*, Ach. (E. B. 31, t. 2204.)—*Lepraria chlorina*, Ach.;—E. B. 29, t. 2038. Of the foliaceous species: *Parmelia saxatilis*, Ach. (E. B. 9, t. 603.)—*P. omphalodes*, Ach. (E. B. 9, t. 604.)—*P. encausta*, Ach. (E. B. 29, t. 2049.)—*P. conspersa*, Ach. (E. B. 30, t. 2097.)—*P. parietina*, Ach. (E. B. 3, t. 194.)—*Sticta pulmonaria*, Ach. (E. B. 8, t. 572.)—*Solorina crocea*, Ach. (E. B. 7, t. 498.)—*Gyrophora deusta*, Ach.; E. B. 35, t. 2483.—*G. pustulata*, Ach. (E. B. 18, t. 1283);—but the most important are: *Roccella tinctoria*, Ach. (E. B. 3, t. 211.) and *R. fuciformis*, Ach. (E. B. 11, t. 728.) the dye of which is so largely used by manufacturers under the name of Orchall, or Archill, or Orseille des Canaries. The nutritive properties of Lichens probably depend upon the presence of an amylaceous substance analogous to gelatine, which, according to Berzelius, exists in the form of pure starch or amylaceous fibre, to the amount of 80-8 per cent. in *Cetraria islandica*, Ach. (E. B. 19, t. 1330,) which is the common Iceland Moss. Other Mosses, f. ex. *Cetraria nivalis*, Ach. (E. B. 28, t. 1994.)—*Sticta pulmonaria*, Ach. and *Alectoria usneoïdes*. Ach. will all answer the same purpose. The Reindeer Moss, which forms the winter food of that animal, is *Cladonia rangiferina*, Hoffm. (E. B. 3, t. 173.) *Borrera? Ashneh*, Royle, by the Natives called Chulcheleera, is commonly employed as a dye in India. (Lindl. and Royle.)

ORDER CCLXXVIII.—FUCACEÆ, (ALGACEÆ, Lindl. Nat. Syst. p. 430.—Algæ, Juss.)

THE SEA-WEED TRIBE.

Of these leafless, flowerless water-plants, Wall. Cat. only enumerates, 2 Indian species, borrowed from Buch. Herb. Royle mentions none, but says, that Röttler's Herb. contains a few species of *Conferva*, collected from the neighbourhood of Tranquebar. A general account of this order will be found in Lindl. l. c.

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INDICES.

The words in Capitals, denote the Natural Families. The words in Small Capitals, represent the Genera. The names in Roman, have reference to the Species. The names printed in Italic, indicate the Varieties.

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